

## APPENDIX E

### SURVIVAL TASKS

#### 1. General Instructions for the EFMB Test Board.

The candidate will be required to complete ten performance tasks listed below and pass seven of ten tasks. These tasks will be tested under simulated combat conditions in a battlefield scenario. To facilitate the simulated combat conditions, these tasks should be tested as a reaction-style testing.

#### 2. Objective.

To measure the candidate's ability to perform survival tasks necessary under simulated combat conditions in a battlefield scenario.

### SECTION I

#### M16-SERIES OR M4-SERIES RIFLE

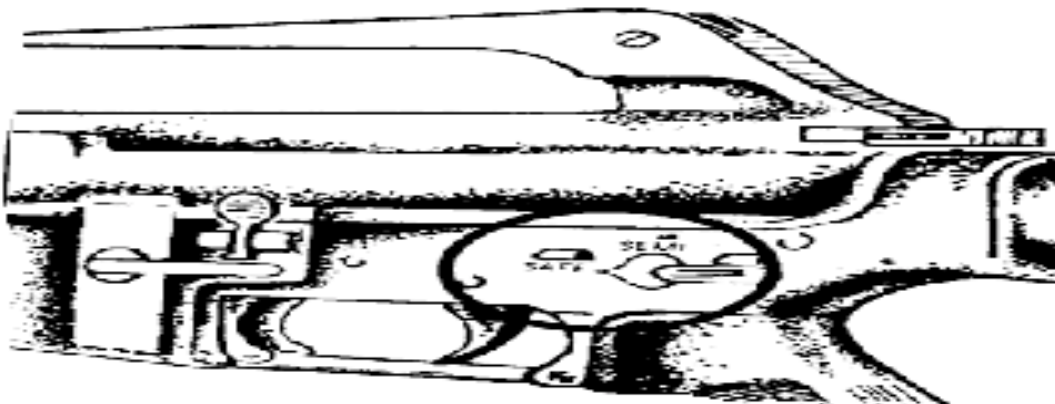
#### E-1. Maintain an M16-Series or M4-Series Rifle, 071-311-2025

##### 1. Clear the rifle.

a. Remove the magazine from the rifle, if there is one present.

b. Cock the rifle.

c. Turn the selector to SAFE (figure E-1).



**Figure E-1 Selector lever on safe**

Note

The selector cannot be turned to SAFE unless the rifle is cocked.

- d. Lock the bolt open (figure E-2).

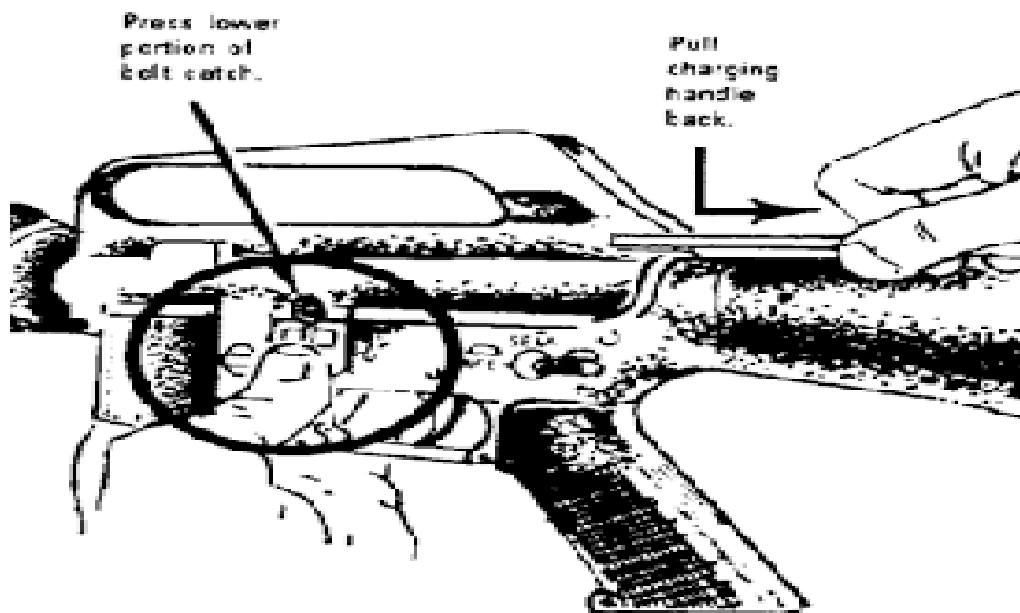


Figure E-2 Locking the bolt open

- (1) Pull the charging handle rearward.
- (2) Press the bottom of the bolt catch.
- (3) Allow the bolt to move forward until it engages the bolt catch.
- (4) Return the charging handle to the forward position.
- (5) Ensure the selector is on SAFE.

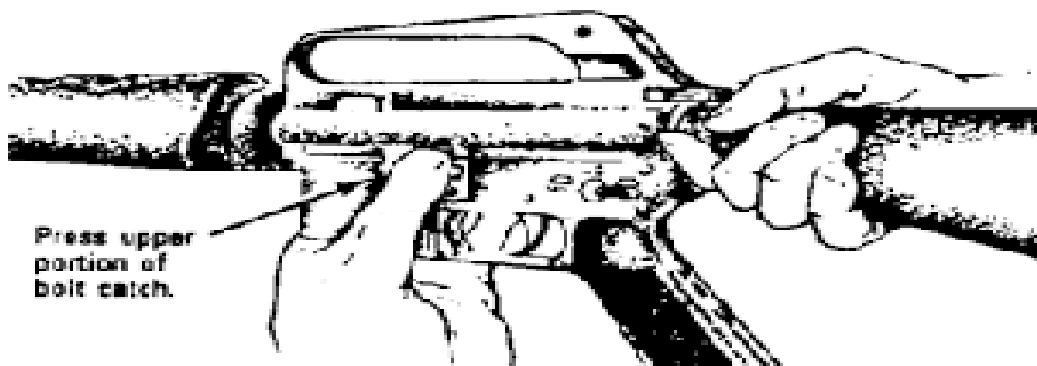
e. Check the receiver and chamber to ensure they do not contain ammunition (figure E-3).



**Figure E-3 Inspecting the chamber**

f. Allow the bolt to go forward by pressing the upper portion of the bolt catch (figure E-4).

2. Disassemble the rifle.
  - a. Verify the rifle is clear.
  - b. Remove the sling.



**Figure E-4 Releasing the bolt**

c. Remove the handguards only if you can see dirt or corrosion through the vent holes (figure E-5). Handguards on the M16A2 are interchangeable because they are identical.

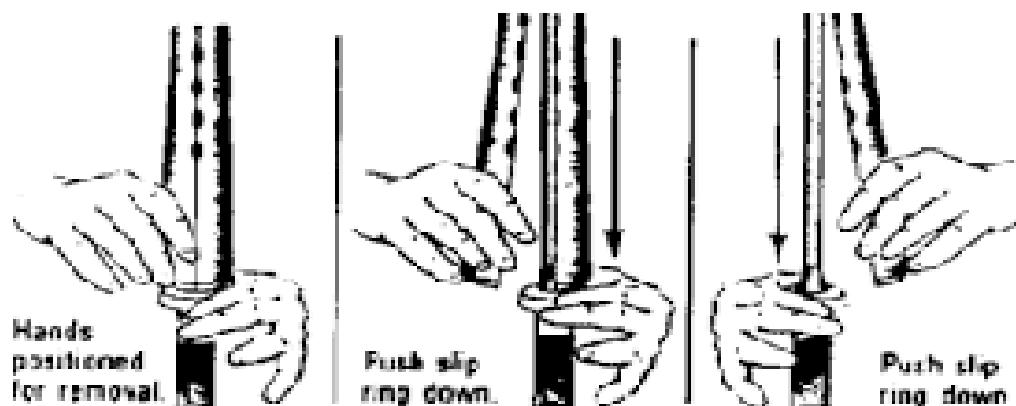


Figure E-5 Removing the handguards

**WARNING**

Use care so as not to bend or dent the gas tube while removing handguards.

- d. Push the takedown pin as far as it will go and pivot the upper receiver from the lower receiver (figure E-6).
- e. Push the receiver pivot pin (figure E-7)

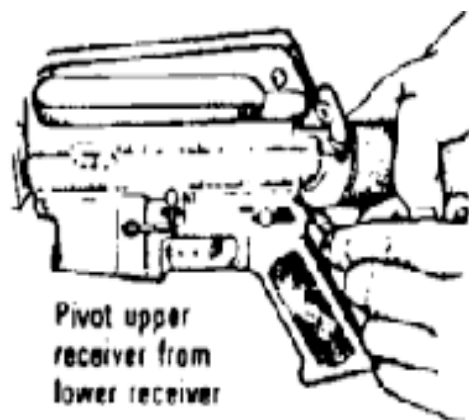


Figure E-6. Pushing the takedown pin.

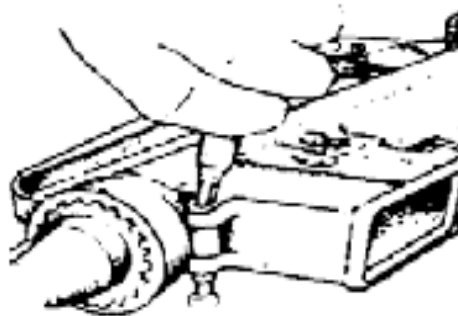


Figure E-7. Pushing the receiver pivot pin.

- f. Separate the upper and lower receivers (figure E-8).
- g. Pull back the charging handle (figure E-9).

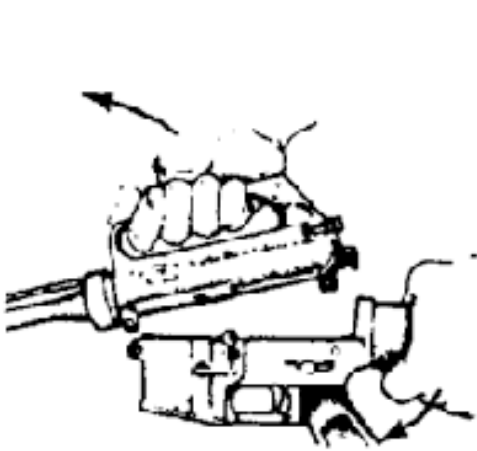


Figure E-8. Separating the upper and lower receivers.

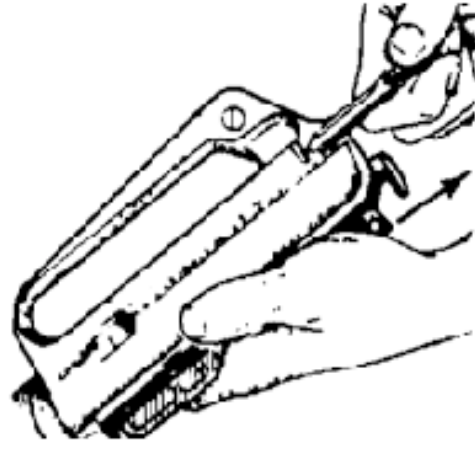


Figure E-9. Pulling the charging handle.

- h. Remove the bolt carrier and bolt (figure E-10).
- i. Remove the charging handle (figure E-11).

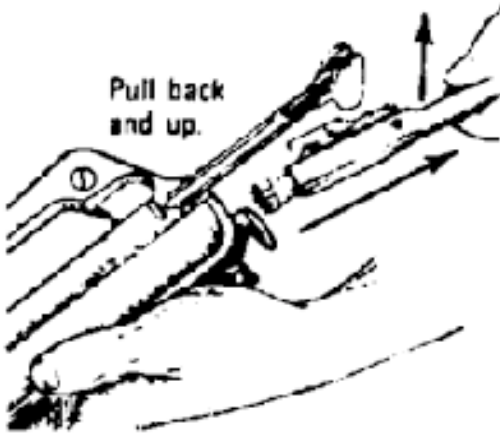


Figure E-10. Removing the bolt carrier and bolt.

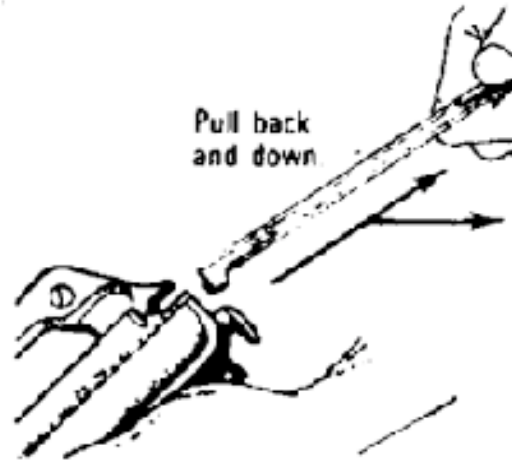


Figure E-11. Removing the charging handle.

j. Remove the firing pin retaining pin (figure E-12).

k. Put the bolt assembly in the locked position by pushing in the bolt (figure E-13).

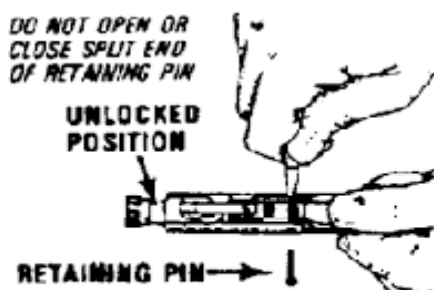


Figure E-12. Removing the firing pin retaining pin.

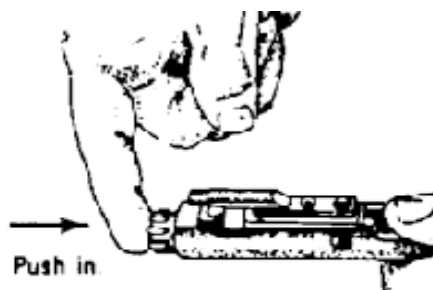


Figure E-13. Bolt in the locked position.

l. Remove the firing pin by allowing it to drop out of the rear of the bolt carrier into your hand (figure E-14).

m. Remove the bolt cam pin by turning it one-quarter turn and lifting it out (figure E-15).



Figure E-14. Removing the firing pin.

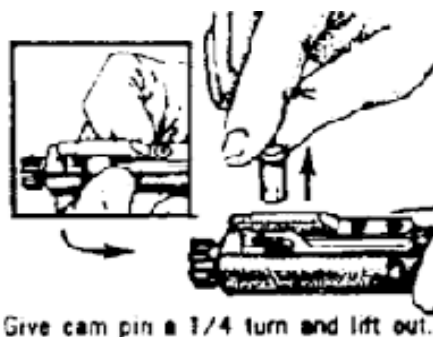


Figure E-15. Removing the bolt cam pin.

- n. Pull the bolt assembly from the carrier (figure E-16).

**NOTE**

Perform steps o through r only when the parts are dirty or damaged.

- o. Remove the extractor pin by pushing it out with the firing pin (use care not to damage the firing pin) (figure E-17).

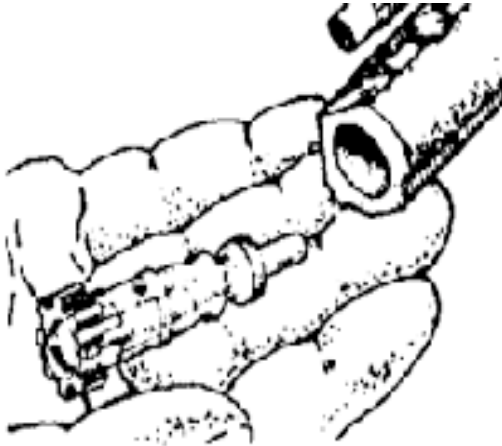


Figure E-16. Removing the bolt.

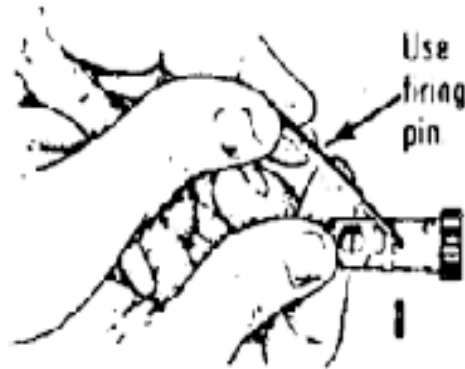


Figure E-17. Removing the extractor pin.

- p. Lift out the extractor and spring (figure E-18), taking care so that the spring does not separate from the extractor.

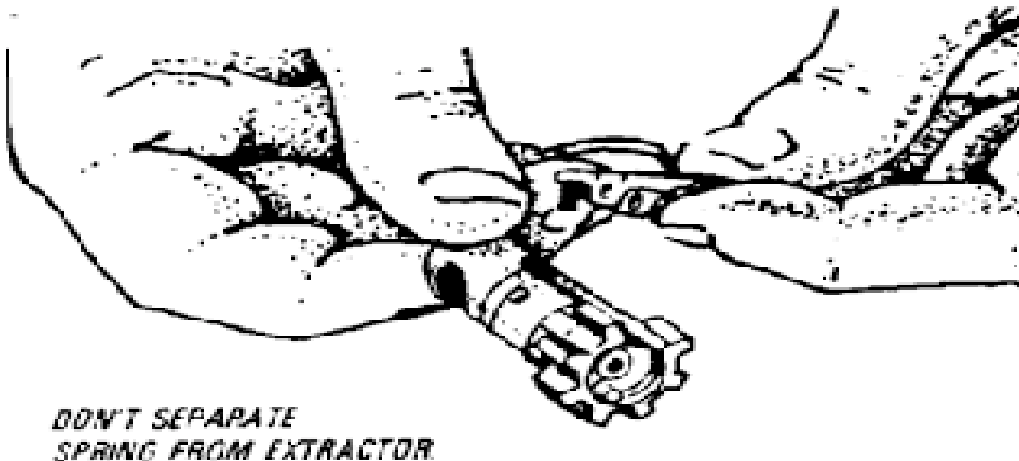


Figure E-18. Removing the extractor and spring.

**NOTE**

**Press the top of the extractor to check spring function.**

q. Release the buffer by pressing the buffer and depressing the retainer.

r. Remove the buffer and action spring separating the buffer from the spring (figures E-19 and E-20).

s. Do not disassemble the rifle further.

3. Clean the rifle by removing carbon buildup and lubricating according to lubrication instructions. Make sure you remove any excessive oil from the bore before firing.

**NOTE**

**After firing ball or blank ammunition, clean the weapon one time only with CLP. Under all but the coldest Arctic conditions, use only CLP to lubricate the rifle.**

a. Clean the upper and lower receiver group using CLP to remove powder fouling in the upper receiver (figure E-21).



**Figure E-19. Separating the buffer and the spring.**





Figure E-20. Separating the buffer and spring.

b. Clean the bolt carrier group, wiping the following parts with swabs and other parts from the small arms maintenance equipment case (figure E-22).

- (1) The outer and inner surfaces of the bolt carrier.
- (2) The carrier key.
- (3) The firing pin recess and firing pin.
- (4) The firing pin hole with a pipe cleaner.
- (5) The carbon deposits and dirt from the locking lugs.
- (6) The areas behind the bolt ring and under the lip of the extractor.

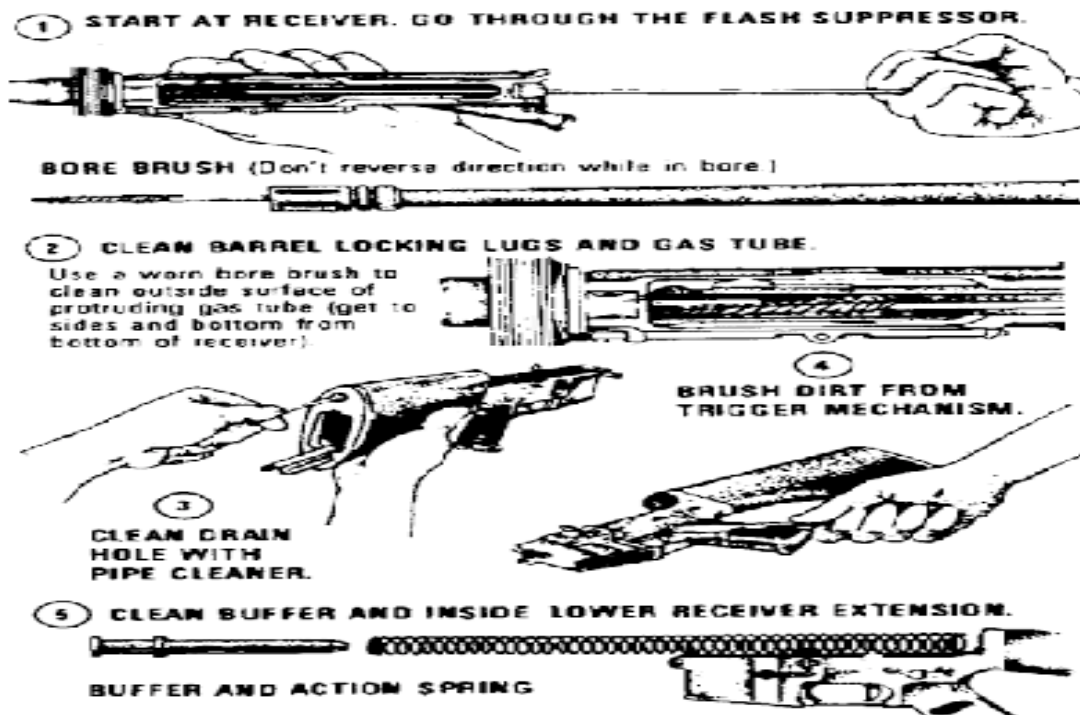


Figure E-21. Cleaning the receivers.

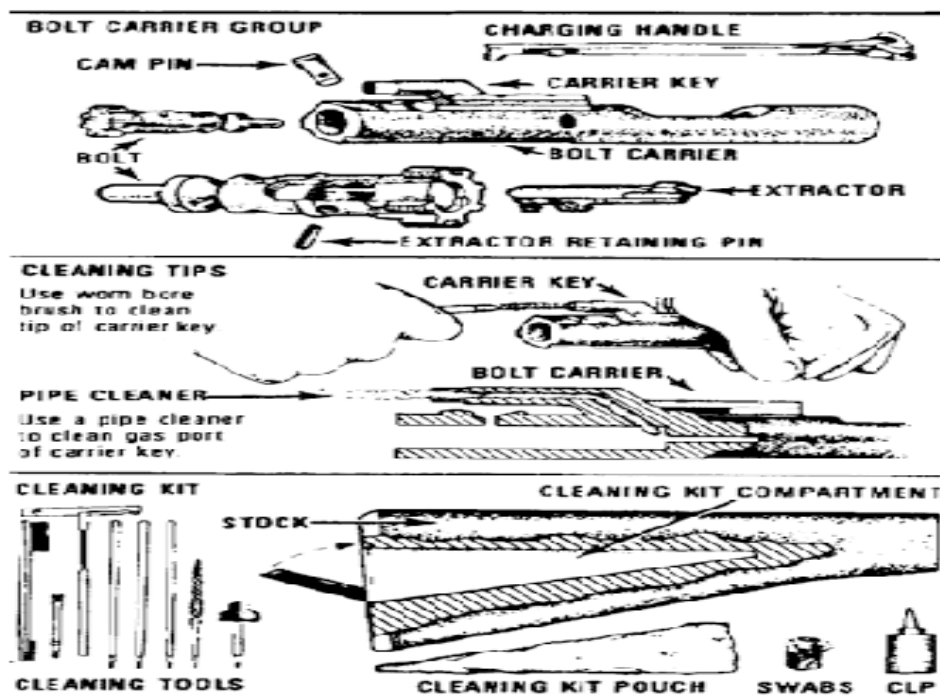


Figure E-22. Cleaning the bolt carrier group.

c. Clean the following rifle parts lightly lubricating with CLP (figure E-22).

- (1) Lugs in the barrel extension, bore, and chamber.
- (2) Bolt carrier.
- (3) Slide cam pin area.
- (4) Piston rings.
- (5) Outside the bolt body.

- (6) Inside the bolt carrier key.
  - (7) Firing pin and firing pin recess.
  - (8) Outside surface of the protruding gas tube with a worn bore brush.
  - (9) Buffer.
  - (10) Action spring.
  - (11) Inner surfaces of the lower receiver extension.
  - (12) Inside the lower receiver.
  - (13) All other components.
4. Inspect disassembled rifle bolt assembly (figure E-23).
- a. Identify defective or missing components.
  - b. Report deficiencies to the armorer.

**WARNING**

**Do not interchange bolts between rifles.**

- a. Insert the spring and buffer (figure E-24).

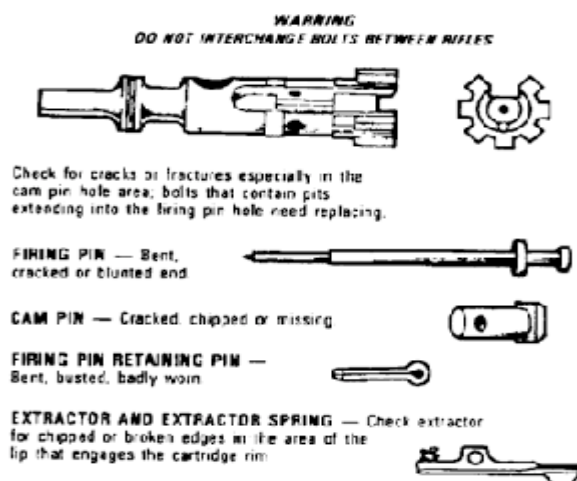


Figure E-23. Inspecting the bolt assembly.

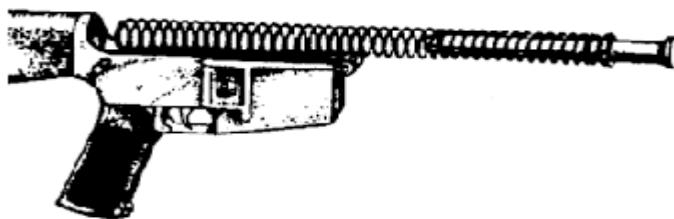


Figure E-24. Placing the spring and buffer

- b. Insert the extractor and spring (figure E-25).

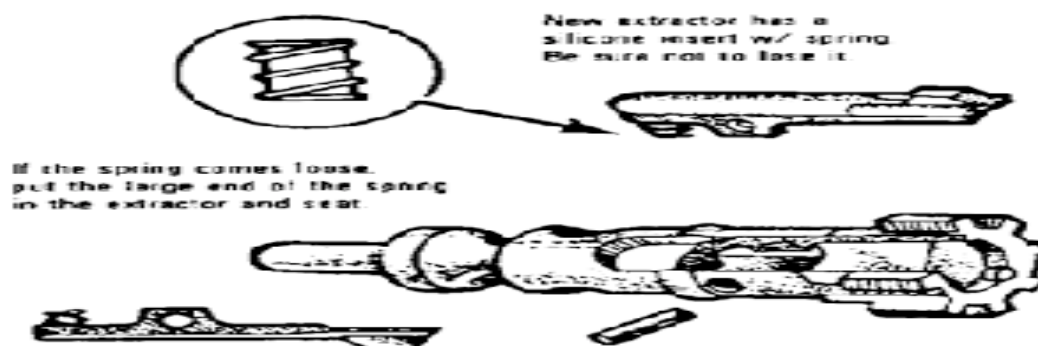


Figure E-25. Placing the extractor and spring.

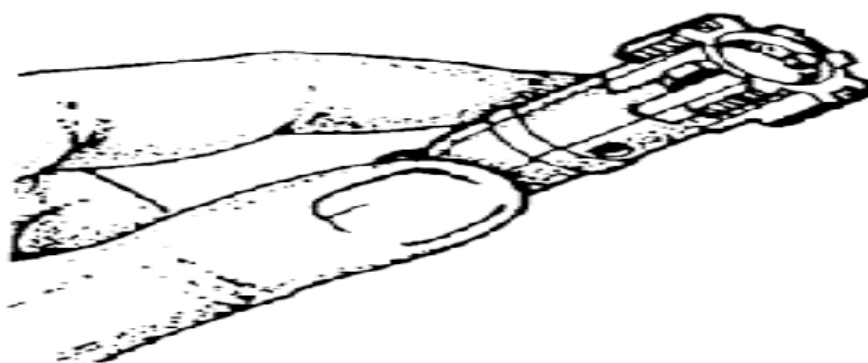


Figure E-26. Holding the extractor pin.

- c. Push the extractor pin in (figure E-26).

d. Slide the bolt into the carrier until the bolt cam pin hole in both the bolt carrier and the bolt are aligned (figure E-27).

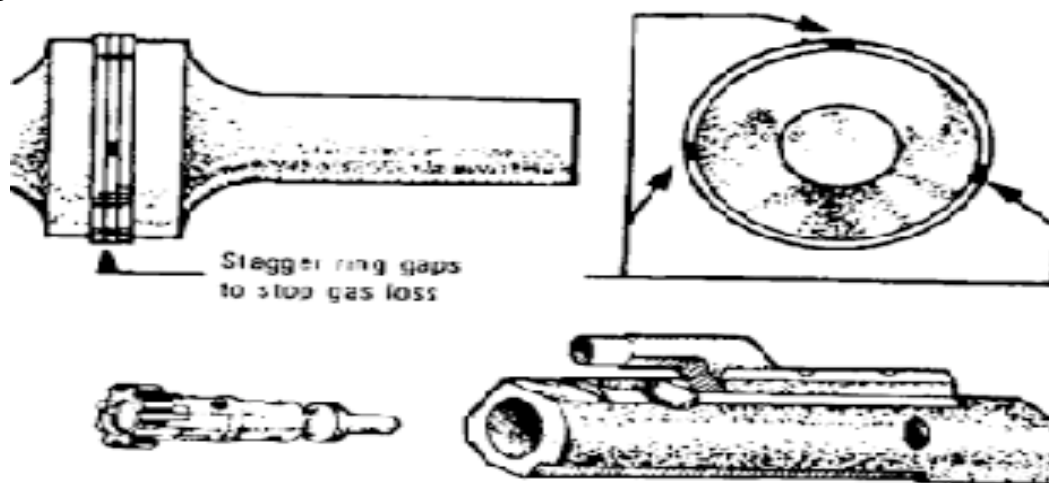


Figure E-27. Placing the bolt in the carrier.

e. Place the bolt cam pin by putting it in the bolt carrier turning it one-quarter turn (figure E-28).

f. Drop in the firing pin to seat it (figure E-29).

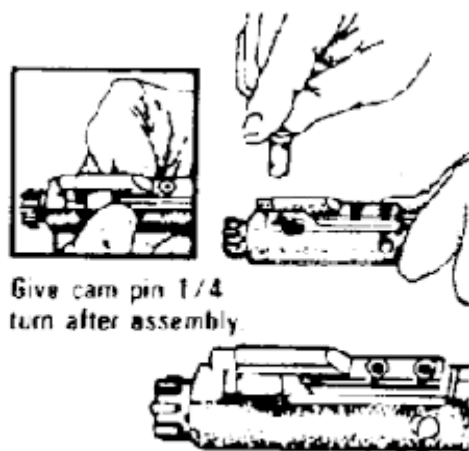


Figure E-28. Replacing the bolt cam pin.

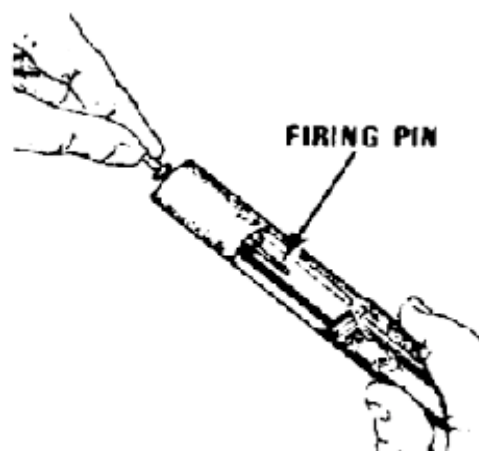


Figure E-29. Placing the firing pin.

g. Put the firing pin retaining pin in the bolt carrier to seat it (figure E-30).

h. Pull the bolt back (figure E-31).

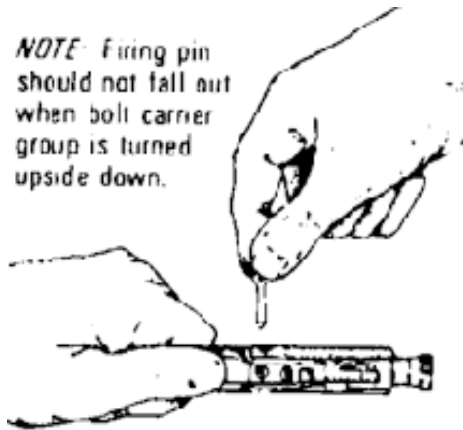


Figure E-30. Placing the firing pin retaining pin.



Figure E-31. Pulling back on the bolt.

i. Place the charging handle by engaging it, then pushing the charging handle part of the way in (figure E-32).

j. Slide the bolt carrier into the upper receiver (figure E-33).



Figure E-32. Placing the charging handle in the receiver.



Figure E-33. Placing the bolt carrier.

k. Push the charging handle and bolt carrier together in the upper receiver (figure E-34).

1. Join the upper and lower receiver (figure E-35).



Figure E-34. Placing the charging handle and the bolt carrier.

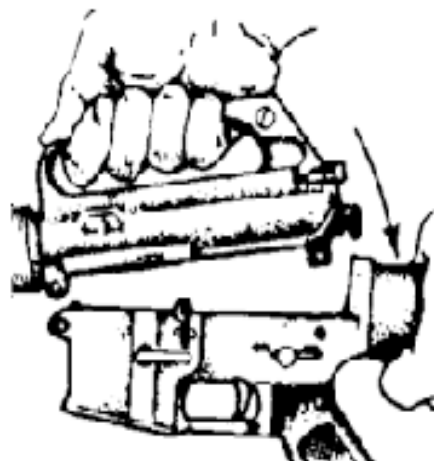


Figure E-35. Joining the upper and lower receiver.

m. Engage the receiver pivot pin (figure E-36).

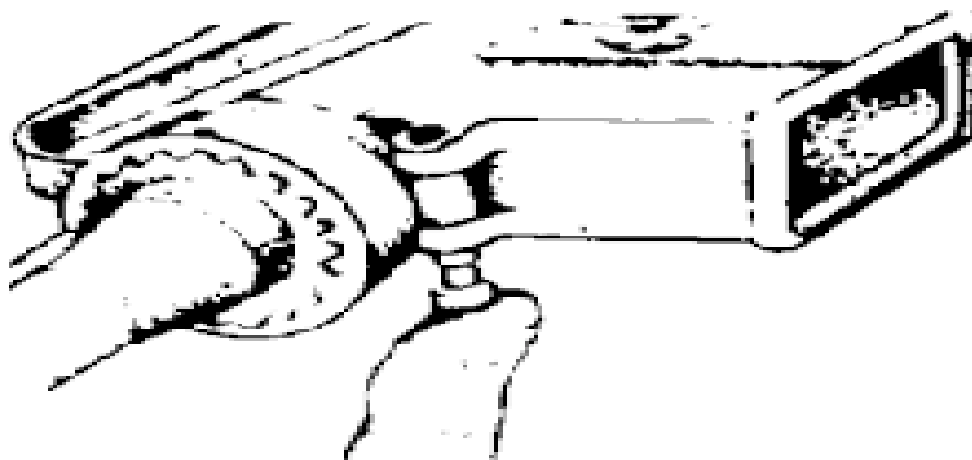


Figure E-36. Engaging the receiver pivot pin.



n. Close the upper and lower receiver groups, seating the takedown pin, and ensuring the selector switch is on safe (figure E-37)

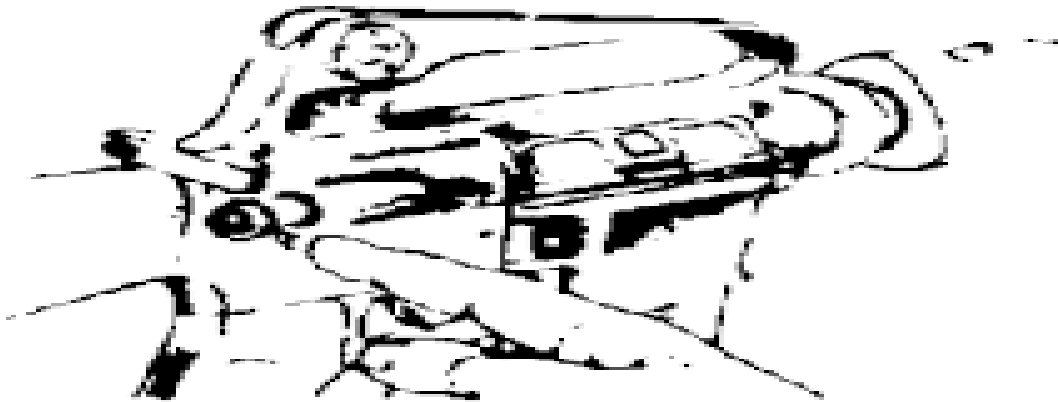


Figure E-37. Seating the takedown pin.

o. Put the handguards in place (figure E-38).

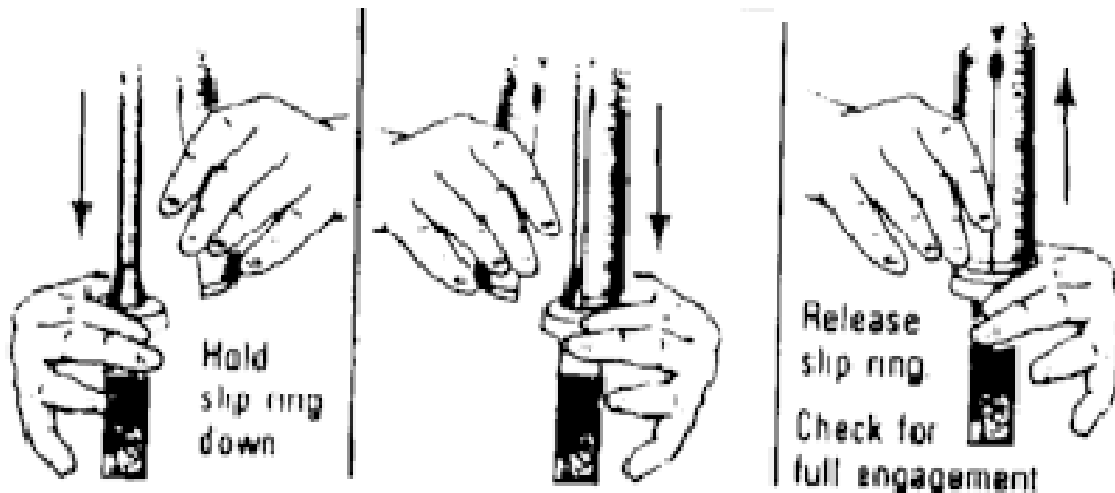


Figure E-38. Placing the handguards.

p. Replace the sling (figure E-39).

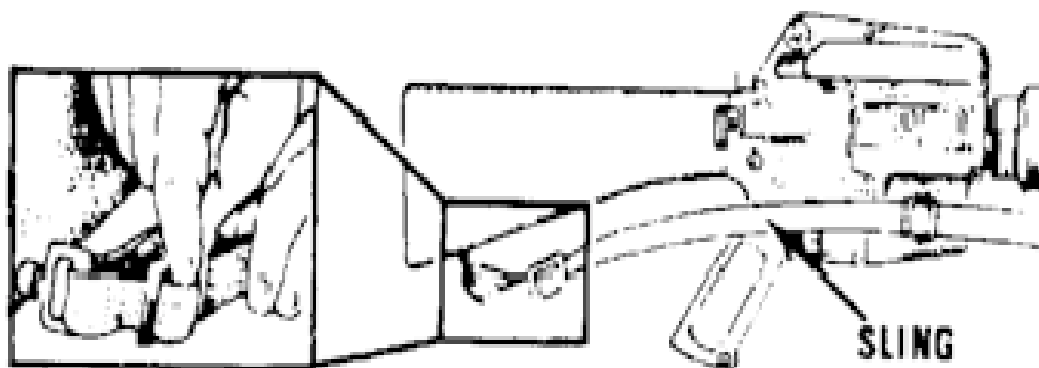


Figure E-39. Placing the sling.

6. Disassemble the magazine without removing the follower from the spring.

a. Release the base catch (figure E-40).



Figure E-40. Releasing the base catch of the magazine.

b. Remove the base (figure E-41).

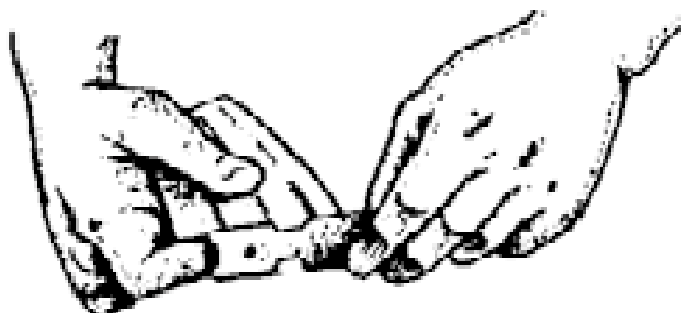


Figure E-41. Removing the base of the magazine.

c. Remove the spring and follower by jiggling spring and follower (figure E-42).

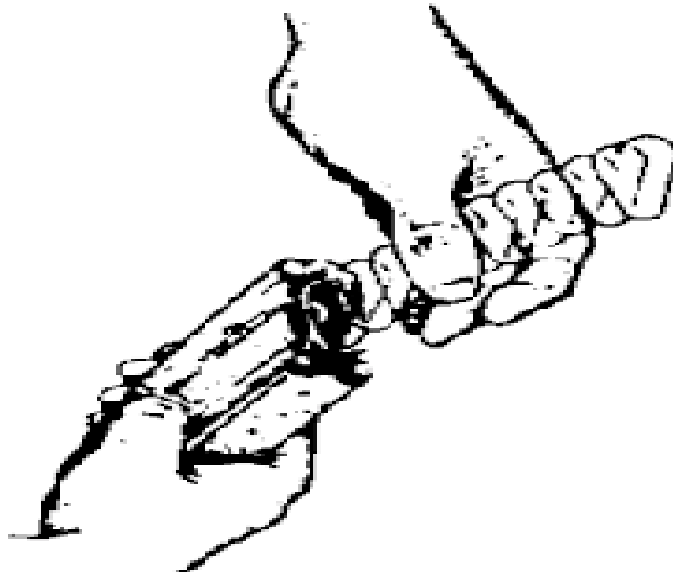


Figure E-42. Removing the magazine spring and the follower.

7. Clean the magazine.
  - a. Wipe the dirt from the tube, spring and follower.
  - b. Lubricate the spring lightly.
8. Assemble the magazine.
  - a. Jiggle the spring and follower together to install them in the magazine.
  - b. Slide the base under all four tabs, making sure that the print is on the outside.
9. Clean the ammunition using a clean, dry cloth to wipe dirt and foreign matter from the ammunition. Do not coat with oil.

**SECTION II**

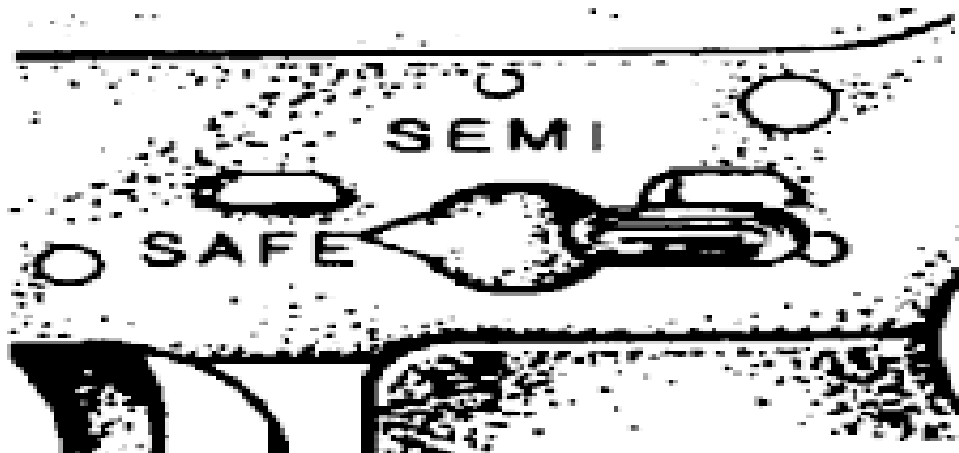
**E-2. Unload an M16-Series or M4-Series Rifle, 071-311-2028**

1. Point the rifle muzzle in a safe direction.
2. Remove the magazine from the rifle.
3. Place the selector lever on SAFE.
4. Lock the bolt open.
  - a. Pull the charging handle rearward.
  - b. Press the bottom of the bolt catch.
  - c. Return the charging handle to the forward position.
5. Remove any ammunition from the receiver and chamber.
6. Press the upper portion of the bolt catch, allowing the bolt to go forward.
7. Pull the trigger to release the pressure on the firing pin spring.

**SECTION III**

**E-3. Perform a Function Check an M16-Series or M4-Series Rifle, 071-311-2026**

1. Check an M16-Series or M4-Series rifle with the selector lever in the SAFE position (figure E-43).



**Figure E-43. Selector on SAFE**

- a. Pull the charging handle to the rear and release it.
  - b. Place the selector lever in the SAFE position.
  - c. Pull the trigger (the hammer should not fall).
2. Check an M16-Series or M4-Series rifle with the selector lever in the SEMI position (figure E-44).

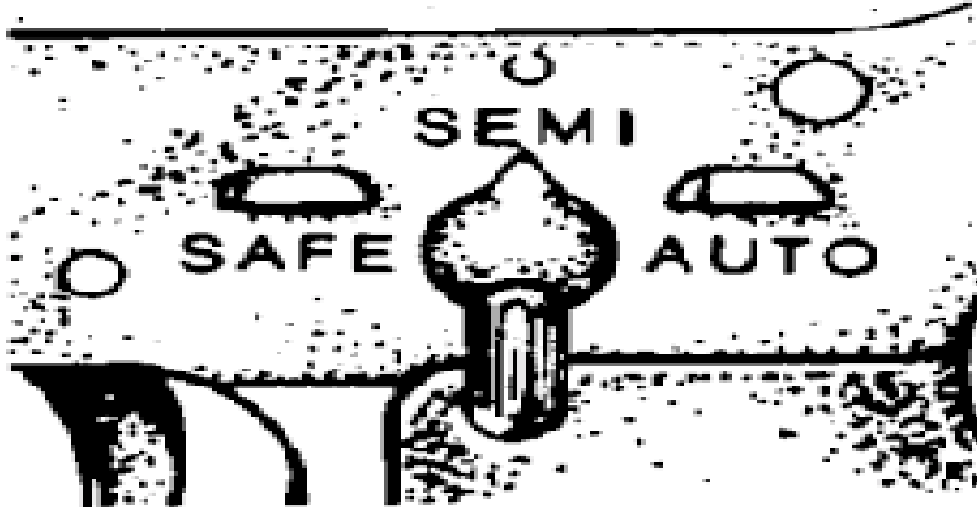


Figure E-44. Selector on SEMI

- a. Place the selector lever in the SEMI position.
  - b. Pull the trigger, holding it to the rear (the hammer should fall).
  - c. Continue to hold the trigger to the rear while pulling the charging handle to the rear and releasing the charging handle.
  - d. Release the trigger with a slow, smooth motion until the trigger is fully forward (the hammer should not fall).
  - e. Pull the trigger (the hammer should fall).
3. Check an M16A1 rifle with the selector lever in the AUTO position (figure E-45).

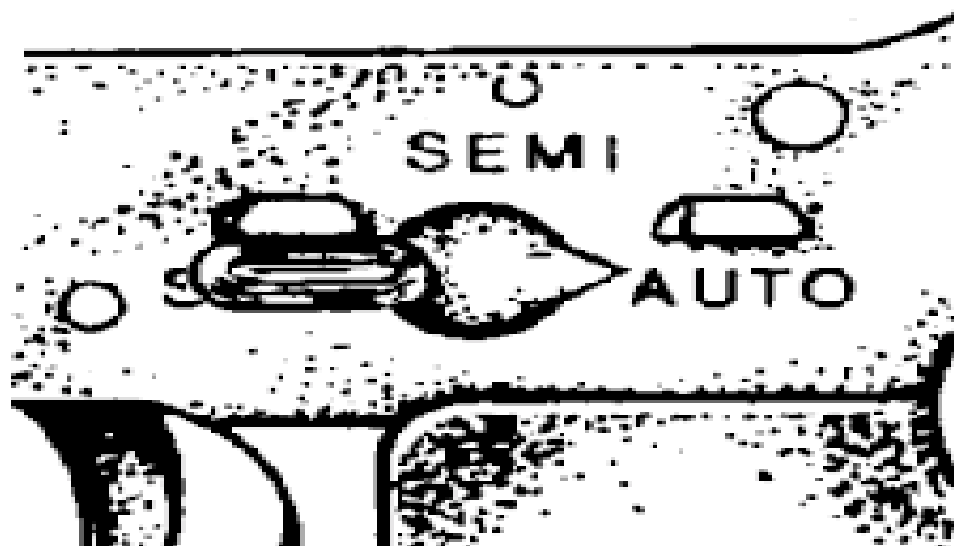
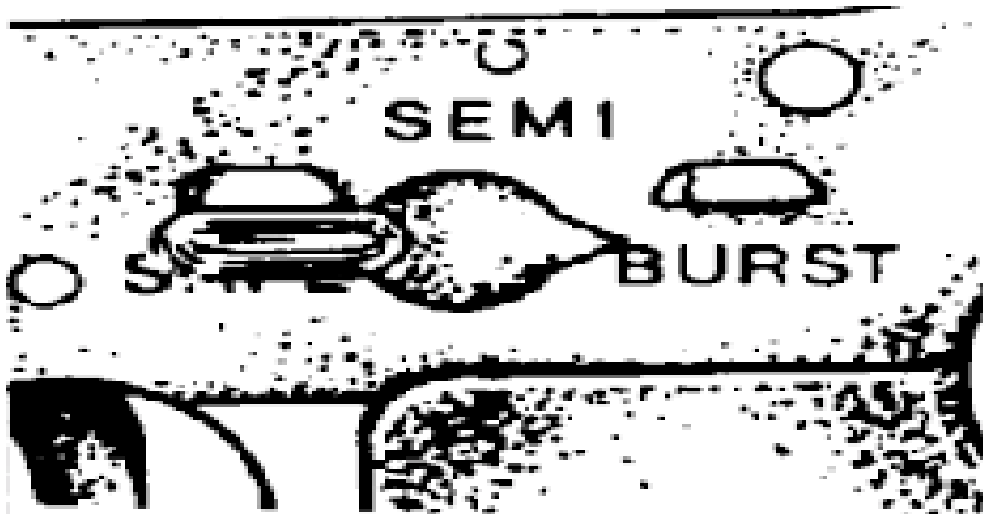


Figure E-45. Selector on AUTO

- a. Place the selector lever in the AUTO position.
- b. Pull the charging handle to the rear and release it.
- c. Pull the trigger holding it to the rear (the hammer should fall).
- d. Continue to hold the trigger to the rear while pulling the charging handle to the rear and releasing the charging handle.
- e. Release the trigger.
- f. Pull the trigger (the hammer should not fall).

4. Check an M16A2 or M4 Series rifle with the selector lever in the BURST position (figure E-46).



**Figure E-46. Selector on BURST**

- a. Place the selector lever in the BURST position.
  - b. Pull the charging handle to the rear and release it.
  - c. Pull the trigger holding it to the rear (the hammer should fall).
  - d. Continue to hold the trigger to the rear while pulling the charging handle to the rear and releasing the charging handle.
  - e. Repeat step 4d twice.
  - f. Release the trigger.
  - g. Pull the trigger (the hammer should fall).
5. Stop the function check any time the rifle does not function properly.
6. Turn in the malfunctioning rifle to the unit armorer.

**E-4. Correct Malfunctions of an M16-Series or M4-Series Rifle,  
071-311-2029**

**WARNING**

If your rifle malfunctions with a live round in the chamber of a hot barrel, quickly remove the round. If you can not remove the round within 10 seconds, remove the magazine and wait 15 minutes with the rifle pointed in a safe direction. Keep your face away from the ejection port while clearing a hot chamber to avoid possible injury from a cookoff.

1. Perform immediate action.

**NOTE**

If your rifle malfunctions, remember SPORTS. This key word will help you remember these actions in sequence: Slap, Pull, Observe, Release, Tap, Squeeze.

- a. Slap upward on the magazine to make sure it is properly seated.
- b. Pull the charging handle all the way back.
- c. Observe the ejection of the case or cartridge. Look into the chamber and check for obstructions.
- d. Release the charging handle to feed a new round in the chamber. Do not ride the charging handle.
- e. Tap the forward assist.
- f. Squeeze the trigger. If the rifle still does not fire, inspect it to determine the cause of the stoppage or malfunction and take appropriate remedial action.

2. Perform remedial action.

**NOTE**

If your rifle still fails to fire after performing steps 1a through 1f, check again for a jammed cartridge case in the chamber.

- a. If a cartridge case is in the chamber, tap it out with a cleaning rod.

**NOTE**



**If your rifle still fails to fire, you may have a mechanical failure.**

- b. Correct a mechanical malfunction.
  - (1) Clear the rifle.
  - (2) Disassemble the rifle.
  - (3) Inspect for dirty, corroded, missing, or broken parts.
  - (4) Clean dirty or corroded parts.
  - (5) Replace missing or broken parts.
  - (6) Assemble the rifle.
  - (7) Perform a function check.
  - (8) Load the rifle.
  - (9) Fire the rifle.

## **SECTION II**

**E-5. Protect Yourself from Chemical and Biological Injury/  
Contamination Using Your M17-Series Protective Mask with Hood,  
031-503-1004**

- 1. Don your mask within 9 seconds.
  - a. Stop breathing, holding your breath until the mask is sealed and cleared.
  - b. Remove your headgear.
  - c. Place your headgear in a convenient location, avoiding contaminated surfaces, if possible.
  - d. Remove your glasses, placing them in a safe place (for example, the overgarment pocket), if appropriate.
  - e. Open your mask carrier with your left hand holding the carrier open.
  - f. Grasp your mask just below the eyepiece with your right hand.

g. Pull the mask out of the carrier so that the hood hangs inside out in front of the facepiece.

h. Grasp the facepiece with both hands.

i. Slide your thumbs up and inside the mask, opening the head harness and facepiece as wide as you can (figure E-47).

j. Put your chin in the chin pocket (figure E-48).



Figure E-47. Open head harness and facepiece.



Figure E-48. Seat chin in mask chin pocket.

k. Pull the head harness up over your head, making sure the head pad is centered at the top back of your head and the mask is smooth against your face and forehead.

**NOTE**

**Never put the head harness over your head first and then pull the mask down over your face.**

1. Adjust the mask by grasping the cheek straps with both hands and pulling them with moderate jerks.

m. Clear the mask by the following steps:

(1) Seal the outlet valve and voicemitter by cupping the heel of one hand over the outlet valve and placing the other hand over the voicemitter and applying pressure (figure E-49).

(2) Blow hard to force air out around the edges of the mask.

n. Check the mask.

(1) Place the palms of your hands over both inlet Valve caps (figure E-50).

(2) Seal the valves by applying pressure.

**Note**

You can either put your hands over or under the hood to do this.



Figure E-49. Clear mask.



Figure E-50. Clear mask.

(3) Suck in and hold your breath.

**Note**

If there are no leaks, your mask will collapse against your face and stay that way until you breathe out.

(a) Go to step 1p, if your mask has no leaks.

(b) Go to step 1o, if your mask does not collapse.

o. Reseat a mask that leaks.

(1) Stop breathing.

(2) Check to see if there is anything, such as hair or clothing, between your face and the mask.

(3) Remove anything that would keep the mask from sealing against your face.

(4) Make sure the head straps and the head pad are not twisted.

(5) Tighten the head straps, if necessary.

(6) Clear your mask by repeating step 1m.

(7) Recheck your mask for leaks using step 1n.

p. Start breathing normally.

2. Don the hood within an additional 6 seconds.

a. Pull the hood up and over your head and down onto your shoulders.

b. Zip the front closed all the way, making sure the edge of the hood does not get caught in the collar of the overgarment.

3. Pull the draw cord slider snug, as the mission allows.

4. Fasten the underarm straps, adjusting them with buddy aid, if available as the mission allows.

5. Replace your headgear (figure E-51).

6. Close your mask carrier.

7. Continue your mission.

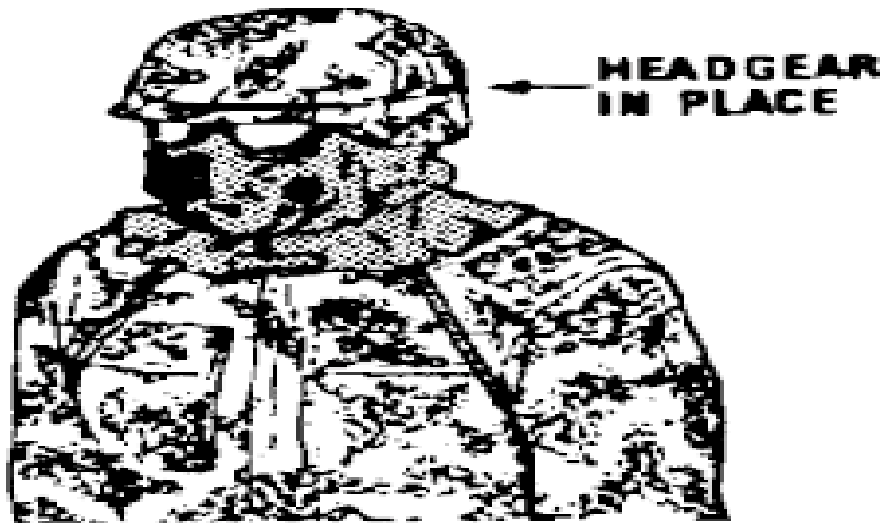


Figure E-51. Replace headgear

NOTE

You should be able to wear your mask (with hood) at least 6 hours while performing your regular duties.

8. Remove mask with hood after the "all clear" order is issued.
  - a. Remove your headgear.
  - b. Unfasten the underarm straps.
  - c. Loosen the draw cord.
  - d. Unzip the front.
  - e. Pull the back of the hood completely over the front of the mask gently.
  - f. Loosen the cheek straps.
  - g. Grasp the mask at the outlet valve chin position with your hand over the hood.
  - h. Remove the mask with a down, out, and up motion.
  - i. Replace your headgear on your head.
9. Store your mask in the carrier.
  - a. Hold the edges of the facepiece with one hand.
  - b. Pull the hood over the front of the mask gently with the other hand so that the mask is inside out (figure E-52).

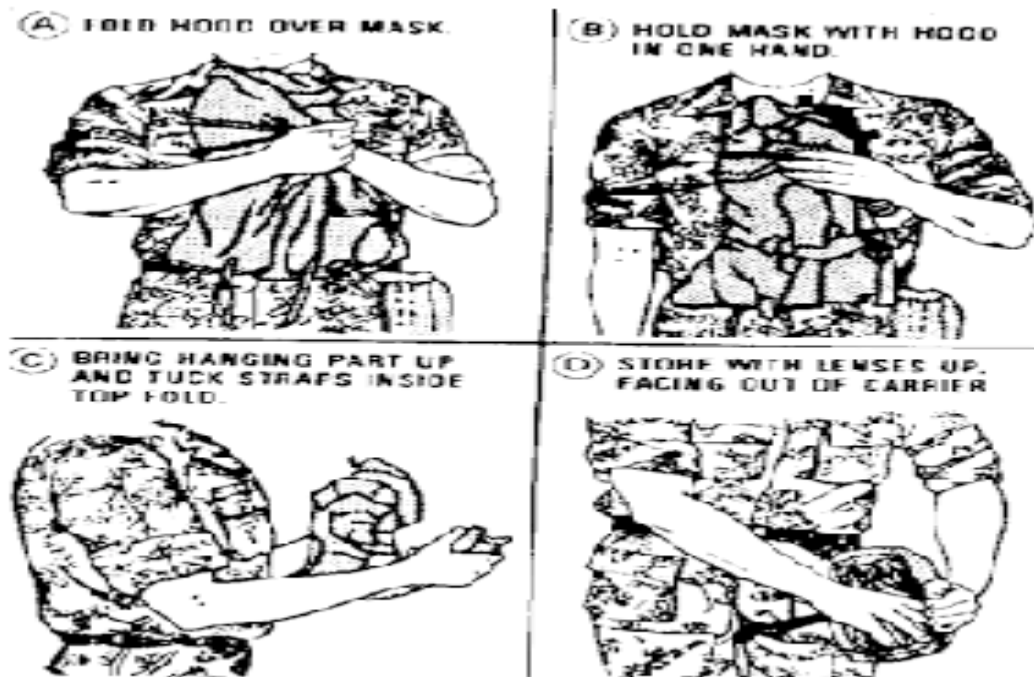


Figure E-52. Pull hood over the front of mask.

- c. Fold the hood over to either side of the mask (A in figure E-53) so that the mask and hood can be held with one hand (B in figure E-53).
- d. Fold the hanging part of the hood up to the folded side without letting the hood cover the chin opening.
- e. Tuck the straps inside the fold (C in figure E-53).
- f. Hold the mask upright.

g. Insert the mask in the carrier with the lenses up and facing out toward the opening of the carrier (D in figure E-53) so the head harness hangs freely inside the carrier.

h. Snap the carrier closed.



**Figure E-53. Folding hood.**

**MAINTAIN YOUR M17-SERIES PROTECTIVE  
MASK WITH HOOD  
031-503-1005**

1. Inspect your M17-series protective mask using table 17, M17-series mask inspection list.

- a. Remove the hood.
- b. Check each component individually.
- c. Record any deficiencies and shortcomings on a DA Form 2404.

**NOTE**

Remember, your mask does not have to be shiny black. A white or rust-colored waxy film does not mean your mask is dirty. The film (called bloom) comes from a preservative built into the rubber, and it will continue to bleed off as long as the facepiece is good. When bloom accumulates or gets crumbly, it needs to be removed.

2. Clean the mask, removing dirt and bloom by brushing or washing it off using soft cloths; a soft bristle brush (like a small paintbrush); warm, soapy water; and warm, clear rinse water.

**CAUTION**

**Do not dunk the mask or carrier in water.**

- a. Remove the voicemitter-outlet valve cover and the disk, the inlet valve assemblies, and the eyelens outserts.
- b. Leave the filter elements in unless instructed not to do so.
- c. Make sure the pouch flaps are securely buttoned.

**NOTE**

**Keep water away from the inlet valve connectors.**

- d. Dip a clean, soft cloth into warm, soapy water and wring it out well.
- e. Wipe the mask and the hood carefully inside and out.
- f. Do the same for the voicemitter-outlet valve cover and the inlet valve assemblies, being extra careful when cleaning the disks in the valve assemblies.
- g. Rinse the cloth in clean, warm water, wringing it out.
- h. Wipe all washed parts.
- i. Dry everything with a dry, clean, soft cloth.



j. Use the dry, soft brush to get around corners, joints, frames, crimped edges, and other hard-to-reach places.

k. Replace the voicemitter-outlet valve cover, the eyelens outserts, and the inlet valve assemblies.

l. Make sure the disks in the inlet and outlet valve assemblies are snug and flat.

m. Press the inlet valve covers hard so they will snap in place. Remember, the louvers slant down.

n. Touch a moist finger to the sealing ring, frame, and locking studs to ease replacement of the outlet valve cover.

3. Clean the lenses and the eyelens outserts by using optical lens cleaning compound (NSN 6850-00-592-3283), if available, or warm, soapy water.

4. Remove defective filter elements and replace the filter elements without damaging the mask.

a. Remove the inlet valve assemblies by pushing up on the bottom edge of the valve flange with your thumbs or use the thumbsaver tool.

b. Work the collar from under the filter element connector flange (figure E-54).

c. Reverse the head harness by lengthening all the straps and looping the harness over the front of the mask. To avoid damage, don't pull the pad below the lenses.

d. Unbutton carefully the nosecup from the flap button (figure E-55).

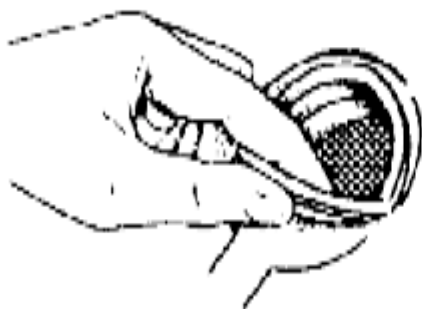


Figure E-54. Remove collar from filter element connector.



Figure E-55. Nosecup flap button.

e. Unbutton carefully the top pouch flap from both flap buttons on each side of the mask (figure E-56).

f. Remove the filters (figure E-57).



Figure E-56. Pouch button.



Figure E-57. Filter removal.

(1) Grasp the upper part of one filter element between your fingers and thumb.

(2) Grasp the outside of the facepiece between the voicemitter-outlet valve assembly and the connector with the other hand.

- (3) Pull the filter element from the mask.
- (4) Remove the second filter in the same way.

g. Replace filter elements.

(1) Check the filter elements against the outside of the cheek pouches to be sure you are installing them correctly (figure E-58). Filter elements are marked either right or left.

(2) Hold the filter element by the square corner with your fingers on the connector side.

(3) Pull the lower pouch flap outward just enough to open the cheek pouch.

(4) Insert the curved edge of the filter into the pouch with a slight turning motion.

(5) Push the filter up into the pouch (figure E-59).

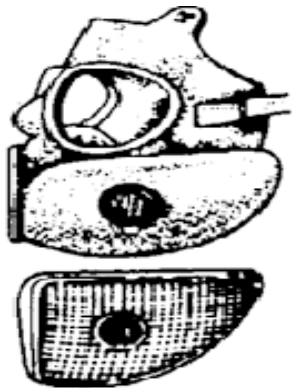


Figure E-58. Match filter with mask.



Figure E-59. Install filter.

(6) Grasp the corner of the filter first inserted into the mask, and work the filter into place (figure E-60).

(7) Allow the nosecup and pouch flaps to fall into proper position.

(8) Check to ensure that the bottom of the nosecup lies on top of the chin stop so moist exhaled air does not enter the pouches and damage the filter elements (figure E-61).



Figure E-60. Install filter.

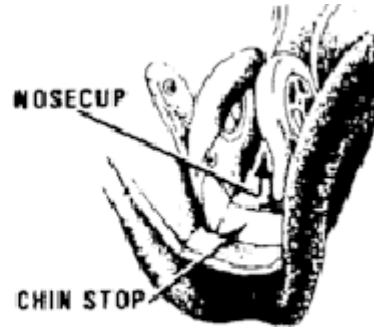


Figure E-61. Seating the chin stop.

(9) Work the collar under the connector flange and recheck the filter element position, adjusting if necessary (figure E-62).

(10) Button the pouch flaps and the nosecup.

(a) Place one finger under the short (outer) button.

(b) Slip the corresponding hole in the flap over that button.

(c) Apply a small amount of moisture (for example, water or saliva) onto the button to allow easier buttoning.

(d) Repeat with the long (inner) button (figure E-63).

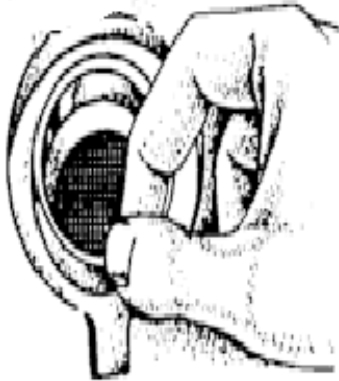


Figure E-62. Mounting collar in filter connector flange.



Figure E-63. Buttoning pouch flap and nosecup.

(e) Slip the hole in the nosecup over the inner button.

(f) Button both sides in a like manner.

h. Return the head harness to the normal position.

i. Install the inlet valve assemblies, ensuring the Louvers are down (figure E-64).

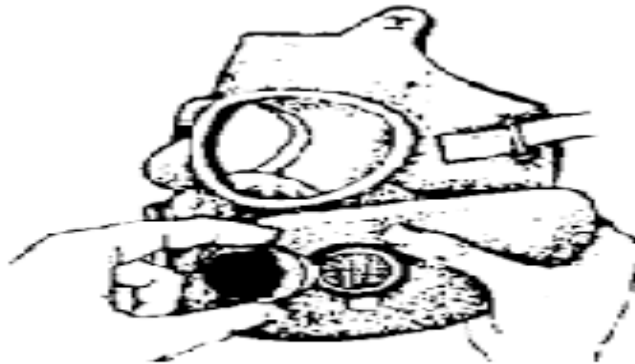


Figure E-64. Install inlet valve assembly.

j. Report to your supervisor for mask fitting.

**E-6. Protect Yourself from Chemical and Biological Injury/  
Contamination Using Your M40-Series Protective Mask with  
Hood, 031-503-1025**

1. Don your mask within 9 seconds.
  - a. Stop breathing.
  - b. Close your eyes.
  - c. Remove your helmet and do one of the following:
    - (1) Store it between your legs above the knees.
    - (2) Hold your rifle between your legs and place the helmet on the flash suppressor.

**WARNING**

**Do not wear contact lenses with the protective mask. Remove contact lenses when the use of chemical agents is imminent.**

- d. Take off your glasses if you are wearing them.
- e. Open the carrier with your left hand holding the Carrier open.
- f. Remove the mask from the carrier by grasping the mask with your right hand.
- g. Put your chin in the chin pocket.
- h. Don the head harness.
  - (1) Pull the head harness over your head after grasping the tab.
  - (2) Position the harness so that your ears are between the temple straps and the cheek straps.

i. While holding the head pad centered on the back of the head, uses the other hand to tighten the cheek straps one at a time (figure E-65).

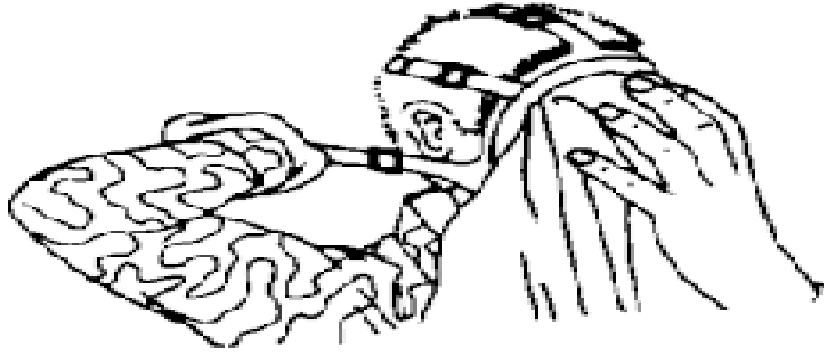


Figure E-65. Tighten cheek straps.

j. Seal the mask.

(1) Cover the openings at the bottom of the outlet valve with the palm of your hand.

(2) Blow out hard so that air escapes around the edges of the mask.

(3) Cover the inlet port of the canister with the palm of your hand.

(3) Resume breathing.

NOTE

The facepiece should collapse against your face and remain so while you hold your breath. If it does, the facepiece is airtight. If the facepiece does not collapse, check for hair, clothing, or other matter between the facepiece and your face (figure E-66).

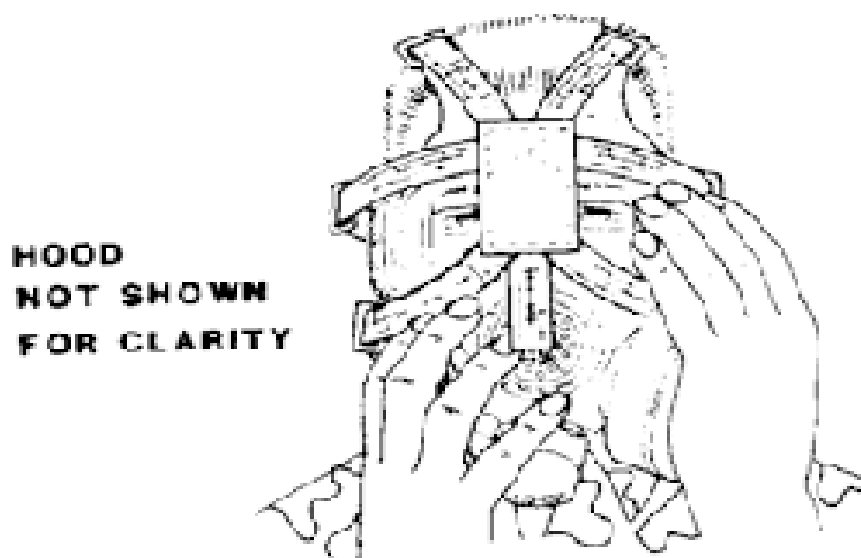


Figure E-66. Clear and check mask.

(5) Remove anything preventing a seal from forming between your face and the mask.



2. Don hood.

- a. Grasp the back edge of the hood skirt.
- b. Pull the hood carefully over your head so that it covers the back of your neck, head, and shoulders.
- c. Tighten the draw cord (A in figure E-67).
- d. Secure the underarm straps by fastening and adjusting them (B in figure E-67).



Figure E-67. Completely fastened mask.

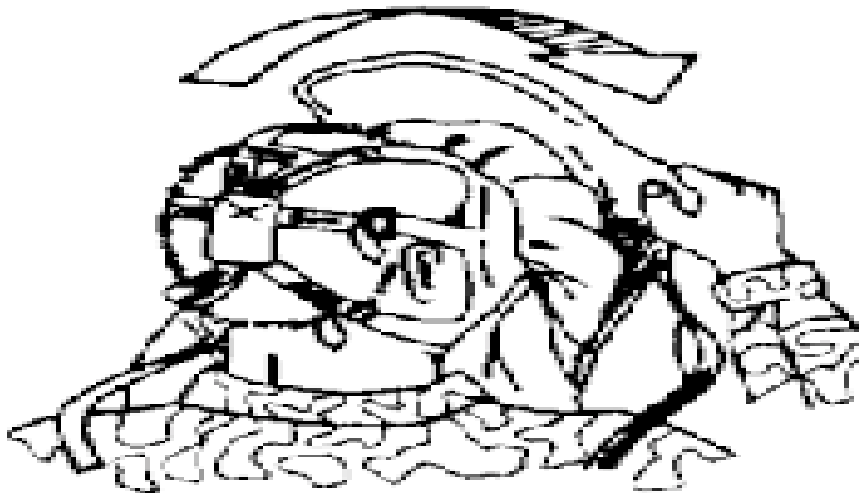
- e. Put on your helmet.
- f. Close your mask carrier.
- g. Continue the mission.

**CAUTION**

DA Pam 40-20, page 12, section 1-11. Clarification, dictates, "some tasks, performance measures, and time standards are not according to STP-1-smct and STP 21-24-smct. Performance measures and time standards are for EFMB purposes only. For this reason protecting yourself with the M40-series protective mask is different from the CTT manual.

3. Remove your protective mask with hood after the "all clear" order is given.

- a. Remove your helmet. I
- b. Unfasten the underarm straps.
- c. Loosen the draw cord.
- d. Unzip the zipper on the hood.
- e. Remove the hood (figure E-68).



**Figure E-68. Pull hood over facepiece.**

(1) Place both hands on the back edge of the hood skirt.

(2) Raise the hood over your head.

(3) Pull the hood over the front of the mask.

f. Loosen the cheek straps.

g. Remove the mask.

(1) Place one hand on the front of the voicemitter to hold the facepiece to your face.

(2) Grasp the head harness tab with your other hand.

(3) Pull the head harness over the front of the mask.

(4) Remove the mask from your head.

- h. Replace your helmet on your head.
- i. Remove any moisture from the hood and mask.
  - (1) Shake off any moisture.
  - (2) Wipe any moisture from the hood and the mask.
- 4. Store your mask with hood.
  - a. Hold the front of the mask in a horizontal position.
  - b. Smooth the hood over the mask.
  - c. Pull the head harness over the front of the mask.
  - d. Fold the two edges of the hood over the outlet valve to create a V in the front of the hood (figure E-69).

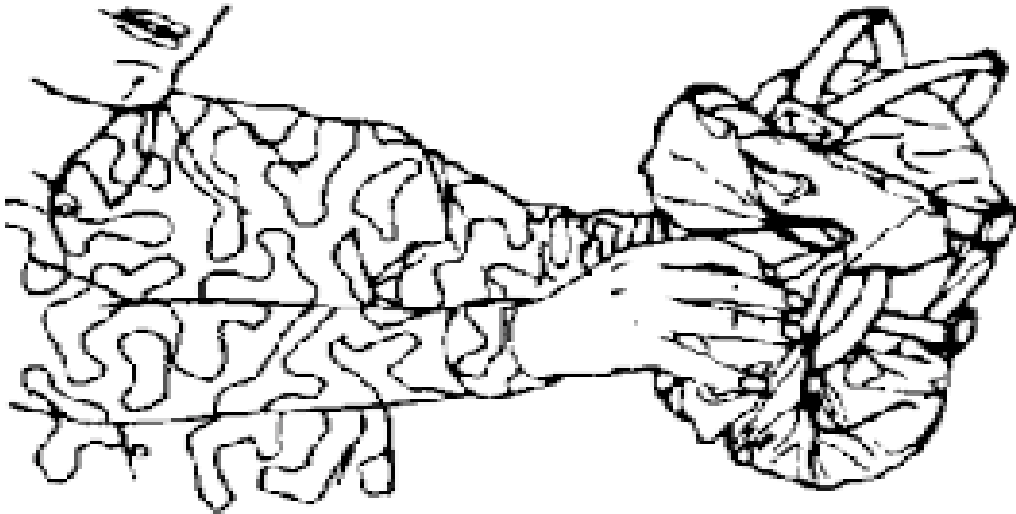


Figure E-69. Folding hood.

- e. Store the underarm straps and the cord in the V.
- f. Fold the V upward to cover the eye lenses without letting the hood cover the chin opening.

g. Put the mask with hood in the carrier while holding the facepiece upright with the lenses facing away from your body (figure E-70).

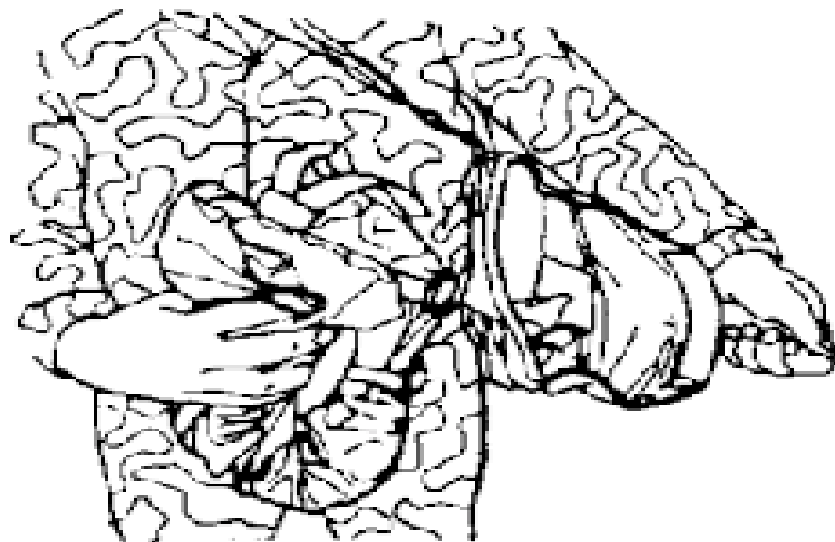


Figure E-70. Put mask in carrier.

- h. Close the carrier opening.
- i. Store the mask with hood in the closed carrier in a cool, dry, dark place.
- j. Hang the carrier (A in figure E-71) by the hook (B in figure E-71) on the short strap.

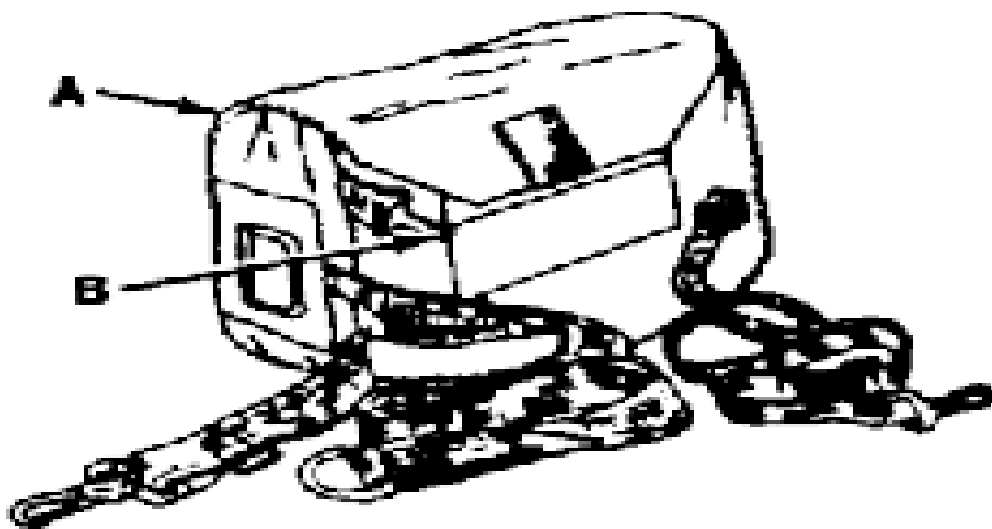


Figure E-71. Mask carrier.

**E-7. Maintain Your M40-Series Protective Mask with Hood,  
031-503-1026**

1. Check the carrier to ensure all issued items are present.
2. Check the filter canister for:
  - a. Cracks, dents, or holes, especially around the seams.
  - b. Clogged air intake.
  - c. Damaged threads on the canister.
  - d. Loose absorbent particles by shaking the canister.
3. Check the eye lenses, the eye-rings, and the outserts.
  - a. Remove the outserts from the facepiece.
  - b. Check the eye lenses for cracks, cuts, scratches, or discoloration that affect your vision.
  - c. Check the eye-rings for distortion or corrosion.
  - d. Check both sets of outsert lenses for cracks, chips, or discoloration that affect your vision.
  - e. Check the rubber rings for tears, looseness, brittle spots, soft or sticky spots, or cracked rims.
4. Check the M42 protective mask for the following:
  - a. Check the hose for splits, cracks, breaks, or damage.
  - b. Check the hose to ensure that it is properly installed on the facepiece and is not loose by gently pulling it.
  - c. Remove the canister carrier from the hose.
  - d. Check the canister carrier to make sure that the gasket installed in the canister fitting at the end of the hose is present and serviceable.
  - e. Check the threads on the canister fitting for damage.

f. Pull gently on the hose fitting to make sure it will not pull free from the hose.

g. Remove the rest of the canister carrier from the facepiece hose.

h. Check the canister carrier cover to make sure that the gas particulate filter unit connection is firmly seated in the inlet post of the canister carrier cover.

i. Check the rubber seal inside the canister carrier cover for signs of separation, cuts, or other damage.

5. Check the hood.

**NOTE**

**Remove the hood to allow inspection.**

a. Examine the hood for cuts, holes, tears, sticky or gummy areas, and peeled or worn coating.

**NOTE**

**Needle holes at the seams are acceptable.**

b. Check for missing, frayed, or torn straps, cords, or hardware; torn, broken, or inoperative zipper; and loose stitching on the hook-and-pile fasteners or dirt in the fasteners.

**WARNING**

**Do not attempt to remove the hose on the M42 protective mask from the facepiece. This may cause leakage of toxic agents into the facepiece.**

6. Check the facepiece.

a. Check the inside surfaces of the facepiece for dirt, mud, and greasy or oily substances.

b. Check the facepiece for holes, tears, and splits.

c. Check the edge of the facepiece for soft or sticky spots.

d. Check all facepiece housings to be sure the silicone rubber is not pulling away, especially around the eye lenses.

**NOTE**

**Check the M42 protective mask hose connection to be sure it is not pulling away.**

7. Check the head harness.

a. Check for dirt.

b. Check the straps for cuts, tears, missing parts, or deterioration such as mildewing or fraying.

c. Check for missing, broken, bent, cracked, or corroded buckles.

d. Pull on the head harness straps to make sure the buckles hold the straps tightly.

e. Check the finish on the buckles for chips or scratches exposing bare metal.

f. Check the head harness for loss of elasticity by putting the harness on.

8. Check the outlet valve and the outlet valve disk.

a. Grasp the tab at the bottom of the outlet valve cover.

b. Carefully lift the bottom portion.

c. Check for a missing, curled, or distorted disk.

d. Check for a sticking disk by rotating it.

e. Check the outlet valve disk for any nicks, cuts, tears, or rips.

f. Check for moisture on the disk, wiping it off with a clean, lint-free cloth.

g. Smooth the disk so it lies flat on the outlet valve seat.

h. Check the outlet valve seat for dirt.

- i. Check the outlet valve cover for cuts, tears, or holes.
  - j. Check for dirt or moisture on the inside of the cover, cleaning it off with a soft, clean, dry cloth.
9. Check the internal and external drinking tubes.
  - a. Check for missing tubes.
  - b. Check for cracks or cuts in the tubes.
  - c. Check the internal drinking tube for improper alignment.
  - d. Check the external drinking tube for improper connections.
  - e. Check for clogged tubes by connecting the M1 canteen cap and blowing air through the system.
  - f. Check the drinking system for leaks.
10. Check the airflow deflector.
  - a. Check the airflow deflector for:
    - (1) Insecure mounting inside the facepiece.
    - (2) Flanges on the deflector that are not in the mounting holes of the facepiece or are broken.
  - b. Check the mounting holes for cuts or tears.
11. Check the inlet valve.
  - a. Check for missing or improperly mounted inlet valve disk and valve body
  - b. Check for a stuck valve body by blowing on the inlet valve disk.
  - c. Check the inlet valve disk for cuts, holes, tears, or dirt.
12. Check the nosecup assembly.
  - a. Check the nosecup and the nosecup valve seats for dirt, cracks, cuts, or holes.



b. Check for a noseclip that is not secured to the back of the front voicemitter housing by gently pulling it.

c. Check for missing, curled, torn, or improperly seated noseclip valve disks.

d. Check for stuck disks by rotating them.

13. Check the M42 protective mask for the following:

a. Blow into the free end of the hose and check to see that the inlet valve disk is not stuck to the inlet valve body.

b. Check the inlet valve disk for cuts, holes, tears, and dirt.

c. Check the microphone and microphone cable to make sure that they are not broken, cracked, or frayed.

d. Check the microphone to make sure that it is not loose on the mount inside the facepiece.

e. Unplug the microphone cable from the front voicemitter socket, checking for corrosion.

f. Check the microphone cable to make sure that it plugs securely into the front voicemitter.

14. Check the M42 protective mask microphone and microphone cable for the following:

a. Check the microphone to ensure that it is not broken, cracked, frayed, or loose on the mount inside the facepiece.

b. Unplug the microphone cable from the front voicemitter socket, checking for corrosion.

c. Check the microphone cable to ensure that it plugs securely into the front voicemitter socket.

15. Check the voicemitters.

a. Check the retaining rings on the front voicemitter and the side voicemitter for corrosion, cracks, or nicks.

b. Check for retaining rings that are not hand-tight.

c. Check the front voicemitter and the side voicemitter for dents, cracks, or punctures.

d. Check the four beads in the center of each voicemitter for one that does not face outward.

16. Check the carrier.

a. Check for dirt, sharp edges, torn straps, or missing hardware.

b. Check for pencil or pen markings on the carrier.

c. Check for mildew, solvents, or abrasive materials that may harm the facepiece.

d. Check the seams for broken stitches.

e. Check the hook-and-pile fasteners for dirt.

17. Clean your mask and carrier using only potable water and alcohol without wetting the canister.

#### **CAUTION**

**Do not dunk the mask or the carrier in water. Do not allow the canister to become wet. A wet canister is useless.**

#### **NOTE**

**Unplug the M42 protective mask microphone cable and wash the facepiece carefully so that the microphone does not get wet.**

a. Remove the canister, the outserts, and the hood.

- b. Set the canister aside, away from cleaning operations so that it does not get wet.
- c. Remove the outlet valve cover.
- d. Remove greasy or oily substances from the facepiece with alcohol and a clean cloth.
- e. Clean the eye lenses and both sets of outserts, polishing them with optical lens cleaning compound (NSN 6850-00592-3283), if available, or warm, soapy water.
- f. Dip a clean, soft cloth into warm, soapy water, wringing it out well.
- g. Wipe the facepiece, the hood, and the outserts inside and out. You can use a soft brush.
- h. Rinse the cloth in clean, warm water, wringing it out.
- i. Wipe all washed parts.
- j. Dry everything with a dry, clean, soft cloth or air dry.

**CAUTION**

**Ensure all components are entirely dry before reassembling the mask and storing it.**

- k. Replace the outlet valve cover, the hood, the canister, and the outserts.

**18. Clean the carrier.**

- a. Remove the contents from the carrier.
- b. Shake the carrier upside down to remove dirt and foreign matter.
- c. Soak the brush in cold water, shaking it to remove excess water.
- d. Clean the carrier with the brush without soaking the carrier or using hot water, bleach, or detergent.

**CAUTION**

**Hot water, bleach, or detergent will reduce resistance of the carrier to water and mildew.**

- e. Store the carrier after it is entirely dry.

**CAUTION**

**Ensure the carrier is entirely dry before storing components.**

- 19. Report discrepancies to your supervisor.

**E-8. Replace Canister on Your M40-Series Protective Mask,  
031-503-1024**

- 1. Replace a canister on an M40 protective mask.
  - a. Remove the canister by unscrewing it counterclockwise from the facepiece.
  - b. Check the connectors of the new canister, the mating surfaces of the facepiece, and the areas between these surfaces for dirt or other debris which would allow contaminated air into your facepiece.
  - c. Check the expiration date on the new canister to ensure the canister has not expired.

**WARNING**

**An expired canister will not filter toxic agents.**

- d. Insert the new canister into the side port of the facepiece.
  - e. Tighten the canister by screwing it clockwise. The canister will be hand-tight only.
- 2. Replace a canister on an M42 protective mask.
  - a. Remove the canister carrier cover by pressing in and rotating it counterclockwise.
  - b. Remove the canister by unscrewing it counterclockwise from the hose and removing it from the canister carrier.
  - c. Check the connectors of the new canister, the mating surfaces of the facepiece, and the areas between these surfaces for dirt or other debris which would allow contaminated air into your facepiece.

d. Check the expiration date on the new canister to ensure the canister has not expired.

**WARNING**

**An expired canister will not filter toxic agents.**

e. Insert the canister into the canister carrier.

f. Make sure the gasket is in the canister connection before connecting the canister to the hose.

**WARNING**

**A missing gasket will affect the seal and will allow the wearer to inhale contaminated air.**

g. Attach the canister to the hose.

(1) Position the hose on the canister.

(2) Tighten the canister by screwing it clockwise into the hose while holding the hose securely.

h. Attach the canister carrier cover to the carrier.

(1) Position the canister carrier cover on the canister carrier.

(2) Press in on the canister carrier cover while rotating it clockwise.

**E-9. Protect Yourself from Chemical and Biological Injury/  
Contamination Using Your M42 Protective Mask With Hood,**

031-503-1028

1. Don your mask.
  - a. Stop breathing.
  - b. Close your eyes.
  - c. Remove your helmet, placing it in a convenient location, while avoiding contaminated surfaces if possible.
  - d. Remove glasses if you are wearing them.
  - e. Open the carrier with your left hand by grasping the flap at the hook-and-pile fastener and pulling it.
  - f. Grasp the mask facepiece with your right hand, withdrawing the mask from the carrier.
  - g. Put your chin in the chin pocket.
  - h. Grasp the tab and pull the head harness over your head, making sure your ears are between the temple straps and the cheek straps.

**CAUTION**

DA Pam 40-20, page 12, section 1-11. Clarification, dictates, "some tasks, performance measures, and time standards are not according to STP 21-1-SMCT and STP 21-24-SMCT. Performance measures and time standards are for EFMB purposes only. For this reason protecting yourself with the M42-series protective mask is different from the CTT manual.

- i. While holding the head pad, uses the other hand to tighten the cheek straps one at a time, ensuring that the straps lie flat against the head.

- j. Cover the openings at the bottom of the outlet valve with the palm of your hand (figure E-72).

**HOOD  
NOT SHOWN  
FOR CLARITY**

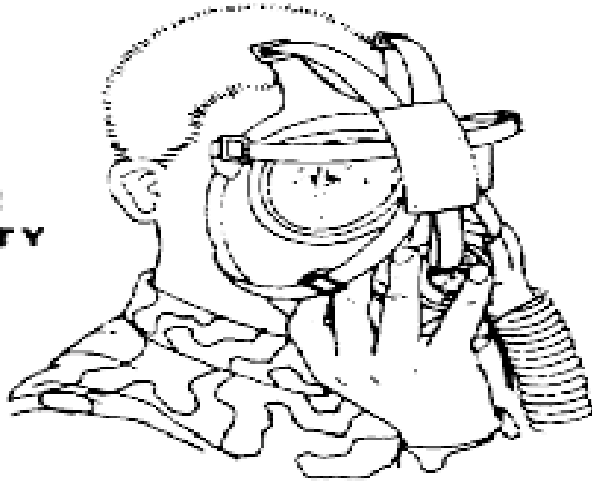


Figure E-72. Clear protective mask.

- k. Breathe out hard so that air escapes around the edges of the mask.

- l. Open your eyes.

**NOTE**

**At this time the mask is clear and it is safe to open your eyes.**

- m. Cover the inlet port of the canister.
- n. Breathe in.

**NOTE**

**The facepiece should collapse against your face and remain so while you hold your breath. If it does, the facepiece is airtight. If the facepiece does not collapse, check for hair, clothing, or other matter between the facepiece and your face.**

- o. Check for any foreign material around the facepiece if the mask does not seal.

2. Don your hood.

- a. Grasp the back edge of the hood skirt (figure E-73).



Figure E-73. Pulling hood over head.

- b. Pull the hood carefully over your head so that it covers the back of your neck, head, and shoulders.
- c. Pull the zipper downward, zipping the front closed.
- d. Tighten the draw cord.
- e. Fasten the underarm straps, adjusting as needed to fit you (figure E-74).

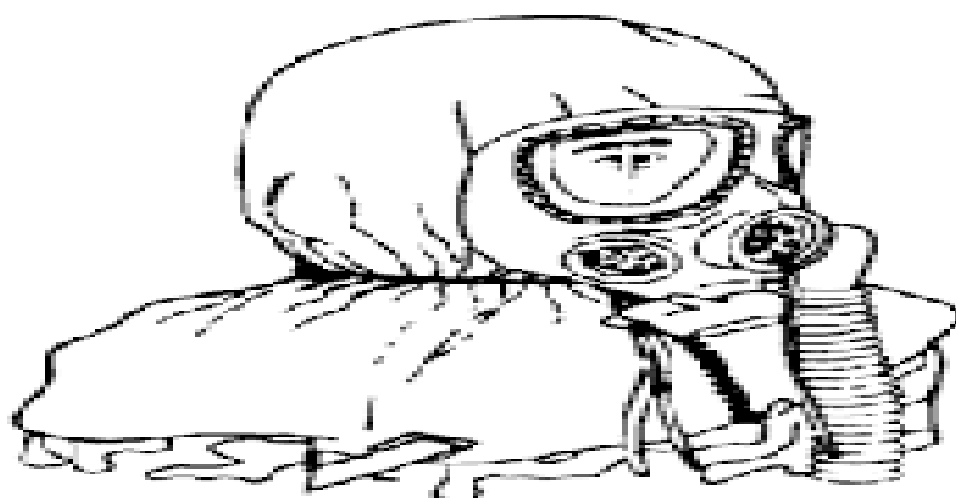


Figure E-74. Hood completely fastened.

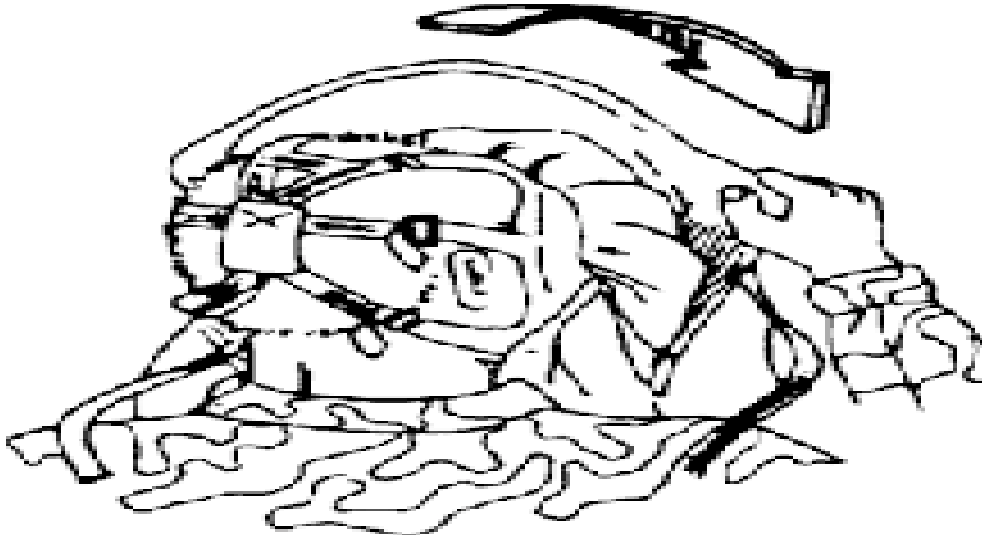


3. Put on your helmet.
  - a. Disconnect the boom microphone from the helmet.
  - b. Connect the mask microphone to the receptacle in the helmet.
  - c. Grasp the helmet next to the earcups with your hand spread as far as possible.
  - d. Place the helmet over your head, tilting the helmet forward slightly so the first contact when putting it on is with the forehead surface of the mask.
  - e. Rotate the helmet back and down over your head until it is seated in position.
4. Closes mask carrier.
5. Remove your mask.

**NOTE**

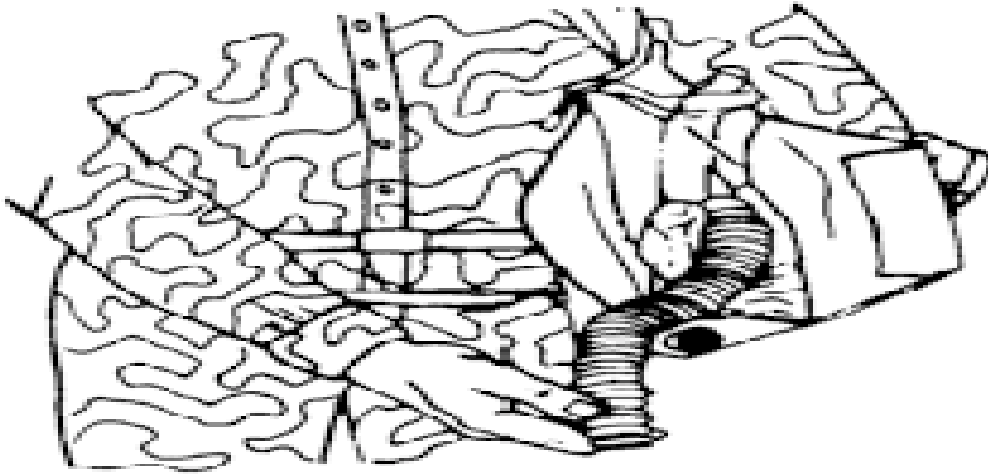
**This procedure is not timed and will begin after the "all clear" order is issued.**

- a. Disconnect the microphone plug from the helmet receptacle.
- b. Remove your helmet.
- c. Remove the hood without damaging it.
  - (1) Unfasten the underarm straps.
  - (2) Loosen the neck cord.
  - (3) Unzip the zipper by holding the lower part of the zipper and pulling the zipper upward.
  - (4) Place both hands on the back edge of the hood skirt.
  - (5) Raise the hood above your head, pulling it over the front of the facepiece (figure E-75).



**Figure E-75. Pulling hood over front of facepiece.**

- d. Loosen the cheek straps.
  - e. Place one hand on the front voicemitter to hold the facepiece on your face.
  - f. Grasp the head harness tab with the other hand.
  - g. Pull the head harness over the front of the facepiece, removing the facepiece.
  - h. Reconnect the microphone to the helmet.
  - i. Replace the helmet.
5. Store your mask with hood.
- a. Install the canister and canister carrier in the carrier pocket with the quick disconnect coupling through the side opening in the carrier.
  - b. Ensure that the hose is pointing toward the opening (figure E-76).



**Figure E-76 . Stowing protective mask .**

- c. Fold the canister carrier straps.
- d. Place the straps in the pocket with the canister.
- e. Close the canister carrier pocket.
- f. Hold the front of the facepiece in a horizontal position, smoothing the hood over it.
- g. Fold the two edges of the hood over the outlet valve to create a "V" in front of the hood.
- h. Store the ends of the underarm straps and the cord in the "V".

**CAUTION**

**To prevent crushing the microphone, do not apply force to the microphone connection when stowing the facepiece.**

i. Grasp the bottom of the hood around the hose, tucking it into the space beneath the canister carrier pocket.

j. Continue to feed as much as possible of the hood and hose into the carrier.

k. Place the facepiece over the canister carrier pocket with the eyelens facing toward the carrier opening.

**NOTE**

**At this point, the facepiece is upside down.**

l. Close the carrier.

m. Close the outside canister pocket.

n. Store your mask with hood in the closed carrier in a cool, dry, dark place, hanging the carrier by the shoulder strap or the hook on the short strap.

**E-10. Decontaminate Your Skin and Personal Equipment  
Using an M258ai Decontamination Kit, 031-503-1007**

**WARNING**

The m258al decontamination kit (olive drab case and wipe packets) will only be used for actual chemical decontamination. Do not use wipes on your eyes, mouth, or open wounds. These areas should be flushed with water. For decontamination of blisters, see the task 081-831-1007, give first aid for burns.

1. Don your mask and hood (refer to table 18 to reference the

<b>Mask</b>	<b>Task</b>
<b>M17-series</b>	<b>031-503-1004</b>
<b>M24 or M25 series</b>	<b>031-503-1012</b>
<b>M40-series</b>	<b>031-503-1025</b>
<b>M42-series</b>	<b>031-503-1028</b>

**Table 18. Mask to task table.**

appropriate task for your assigned mask) without-

- a. Zipping the hood.
  - b. Pulling the draw strings.
  - c. Fastening the shoulder straps.
2. Seek overhead cover or use your poncho for protection against further contamination.
  3. Decontaminate your hands with decontaminating wipe I (figure E-77).

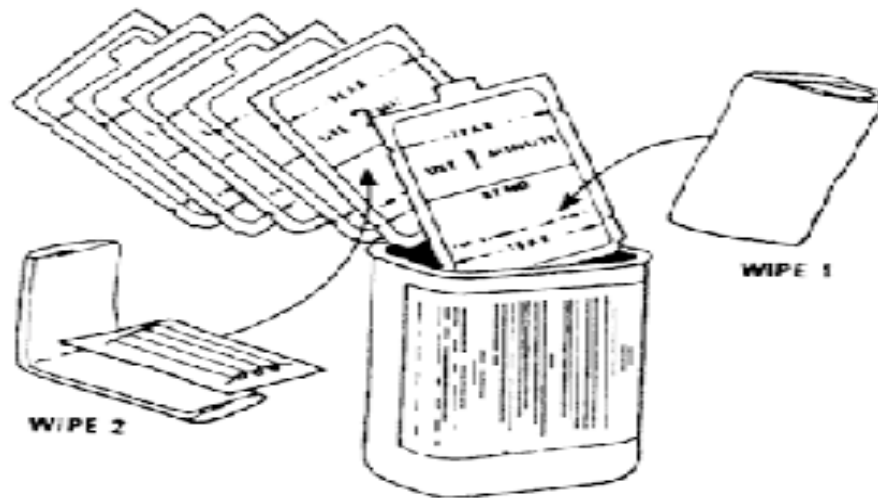


Figure E-77. Skin decontamination kit.

- a. Open the decontamination kit.
  - b. Remove one decontaminating 1 packet.
  - c. Fold the packet on the solid line marked BEND.
  - d. Unfold the packet.
  - e. Tear open the packet at the notch.
  - f. Remove the wipe, fully unfolding it.
  - g. Wipe your skin, starting with your hands.
4. Decontaminate your eyes, if necessary.
    - a. Check your canteen for contamination.
      - (1) Remove your canteen from your LCE.

Unscrew the cap, avoiding possible contamination Of the canteen cap by pushing up on the bottom of the canteen cover until you can grasp the canteen by its body.

(3) Check the canteen mouth for contamination using M8 detector paper. If contaminated, do one of the following:

(a) Obtain an uncontaminated canteen.

(b) Decontaminate the canteen mouth with M258A1 decontamination kit.

b. Unseal your mask as follows:

(1) Hold your breath.

(2) Close your eyes.

(3) Lift the hood and mask from your chin.

c. Flush your eyes with water from the canteen.

(1) Look up, tilting your head to the side to be decontaminated.

(2) Keep your eyes open.

(2) Pour water slowly into your eye without letting the water run onto your clothing.

(4) Flush the other eye, if necessary, using the same steps.

d. Secure your mask by-

(1) Resealing it.

(2) Clearing it.

(3) Checking it.

e. Breathe.

5. Decontaminate your face, if necessary, with a decontaminating wipe 1 (figure E-78). (The stars in figure E-78 show the areas that are hard to decontaminate. When you use the decontaminating wipes, pay extra attention to these areas when scrubbing.)



Figure 78. Hard areas to decontaminate.

- a. Unseal your mask as follows:
  - (1) Hold your breath.
  - (2) Close your eyes.
  - (3) Lift the hood and mask from your chin.

- b. Wipe up and down from ear to ear (figure E-79).



Figure E-79. Decontamination the face.

- (1) Start at your ear.
- (2) Wipe across your face to the corner of your nose.
- (3) Wipe across your face to the other ear.

**NOTE**

The gray area shows the outline of the hood. The eyelens and voicemitter-outlet valve assembly show mask position.



c. Wipe up and down from your ear to the end of your jawbone (figure E-80).



Figure E-80. Decontamination the face (continued).

- (1) Begin where step b ended.
- (2) Wipe across your cheek to the corner of your mouth.
- (3) Wipe across your closed mouth to the center of your upper lip.
- (4) Wipe across your closed mouth to the corner of your mouth.
- (5) Wipe across your cheek to the end of your jawbone.

d. Wipe up and down from one end of your jawbone to the other end of your jawbone (figure E-81).



Figure E-81. Decontaminating the face (continued).

- (1) Begin where you ended in step c.
- (2) Wipe across and under your jaw to your chin, cupping your chin.
- (3) Wipe across and under your jaw to the end of your jawbone.

e. Turn your hand out and quickly wipe the inside of the mask that touches your face (figure E-82).

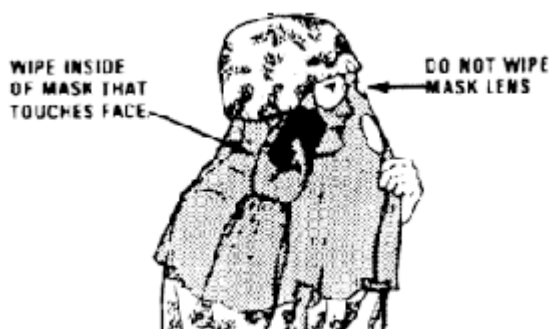


Figure E-82. Decontaminating the inside of the mask.

**NOTE**

**Do not wipe the mask lens. The decontaminating solution may leave a film on the lens.**

f. Secure your mask by-

- (1) Resealing it.
  - (2) Clearing it.
  - (3) Checking it.
  - g. Breathe.
6. Decontaminate your neck and ears, if necessary, using the same decontaminating 1 wipe.
  7. Decontaminate your hands again with the same decontaminating 1 wipe.
  8. Bury the wipe if time permits.
  9. Prepare the decontaminating 2 wipe.
    - a. Pull out one decontaminating 2 wipe packet.
    - b. Crush the enclosed glass ampule between your thumb and fingers without kneading.
    - c. Fold the packet on the solid line marked CRUSH AND BEND.
    - d. Unfold it.
    - e. Tear the packet open quickly at the notch.
    - f. Remove the wipe.
    - g. Open the wipe fully.
    - h. Dispose of the crushed glass ampule by burying it.
  10. Repeat steps 5 through 8 using the decontaminating 2 wipe.
  11. Put on your protective gloves.
  12. Fasten your hood.

13. Make sure all skin areas that you have decontaminated are covered.

14. Decontaminate your personal equipment.

**NOTE**

**Do not use the decontaminating kit on protective overgarments.**

a. Decontaminate weapons, gloves, helmet and hand tools using decontaminating 1 wipe first, then decontaminating 2 wipe.

b. Decontaminate the exterior of the hood and mask.

(1) Wipe eyelens outserts using a decontaminating 2 wipe.

(2) Begin wiping the hood at the top working your way downward.

(3) Repeat (1) and (2) above using decontaminating 1 wipe.

**NOTE**

**Using the wipes in this order will prevent a residue from forming on the eyelens outserts.**

15. Remove radiological contamination from your clothing, equipment, and exposed skin if necessary.

a. Shake or brush contaminated dust from your clothing, equipment, or exposed skin with a brush, broom, or your hands (if a brush or broom is not available).

b. Wash your body as soon as possible, giving special attention to the hairy areas and underneath your fingernails.

**DECONTAMINATE YOUR SKIN USING THE  
M291 SKIN DECONTAMINATING KIT (SDK)  
031-503-1033**

1. Inspect the M291 SDK for loose black powder.

a. If no powder is detected, the kit is mission ready.

b. If powder is detected, inspect each packet for leaks.

c. Discard all leaking packets.

- d. Reinsert good packets into the carrying pouch.
2. Verify that there are at least four skin decontaminating packets in the kit.

**NOTE**

**If there are less than four packets, request an additional kit, continuing to use your kit until all packets are gone.**

**CAUTION**

**For external use only. May be slightly irritating to the skin or eyes. Keep decontaminating powder out of your eyes, cuts and wounds. Use water to wash toxic agent out of your eyes, cuts or wounds.**

3. Decontaminate your skin with the M291 SDK within 1 minute of the suspected exposure.

- a. Put on your mask and hood without -
  - (1) Zipping the hood.
  - (2) Pulling the draw strings.
  - (3) Fastening the shoulder straps.
- b. Seek overhead cover for protection against further contamination.
- c. Remove one skin decontaminating packet from the carrying pouch.
- d. Tear the packet open quickly at the notch.
- e. Remove the applicator pad from the packet.
- f. Discard the empty packet, observing litter discipline.
- g. Open the applicator pad.
  - (1) Unfold the applicator applicator pad.
  - (2) Slip your finger(s) into the handle.
- h. Thoroughly scrub exposed skin on the back of your hand, palm, and fingers until completely covered with black powder from the applicator pad.

i. Switch the applicator pad to the other hand, repeating the previous step on the other hand.

**WARNING**

**Death or injury may result if you breathe toxic agents while decontaminating the face. If you need to breathe before you finish, reseal your mask, clear it, And check it. Get your breath, then resume the decontaminating procedure.**

j. Decontaminate your face and the inside of your mask.

(1) Hold your breath.

(2) Close your eyes.

(3) Grasp the mask beneath your chin.

(4) Pull the hood and mask away from your chin enough to allow one hand between the mask and your face.

(5) Wipe up and down across your face, beginning at the front of one ear to your nose to other ear.

(6) Wipe across your face to the corner of your nose.

(7) Wipe extra strokes at the corner of your nose.

(8) Wipe across your nose and the tip of your nose to the other corner of your nose.

(9) Wipe extra strokes at the corner of your nose.

(10) Wipe across your face to the other ear.

(11) Wipe up and down across your face, beginning from the ear to your mouth to other end of the jawbone.

(12) Wipe across your cheek to the corner of your mouth.

(13) Wipe extra strokes at the corner of your mouth.

(14) Wipe across your closed mouth to the center of your upper lip.

(15) Wipe extra strokes above your upper lip.

(16) Wipe across your closed mouth to the other corner of your mouth.

(17) Wipe extra strokes at the corner of your mouth.

(18) Wipe across your cheek to the end of your jawbone

(19) Wipe up and down across your face, beginning from your jawbone, to your chin and to the other end of your jawbone.

(20) Wipe across and under your jaw to your chin, cupping your chin.

(21) Wipe extra strokes at the center of your chin.

(22) Wipe across and under your jaw to end of your jawbone.

(23) Decontaminate the inside of your mask by turning your hand out and quickly wiping the inside of the mask that touches your face.

(24) Discard the applicator pad, employing litter discipline.

(25) Seal your mask.

(26) Clear your mask.

(27) Cheek your mask.

(28) Breathe.

k. Remove the second packet from the carrying pouch.

l. Tear open the packet quickly at the notch.

m. Remove the applicator pad from the packet.

n. Discard the empty packet, employing litter discipline.

o. Open the applicator pad.

(1) Unfold the applicator pad.

(2) Slip your finger(s) into the handle.

p. Scrub thoroughly the skin of your neck and ears without breaking the seal between your face and the mask until they are completely covered with black powder.

q. Redo your hands until they are completely covered with black powder.

r. Discard the applicator pad, employing litter discipline.

s. Put on your protective gloves.

t. Fasten the hood.

u. Remove the powder with soap and water when operational conditions permit.

**NOTE**

**It does not matter how long the powder stays on your skin.**

**E-11. Decontaminate Your Individual Equipment Using the M295 Individual Equipment Decontamination Kit (IEDK),  
031-503-1034**

**CAUTION**

**Keep decontaminating powder out of your eyes, cuts, and wounds by not:**

**1. Handling or holding leaking packets  
Above the head.**

**2. Touching or rubbing your eyes with anything that has been in contact with the decontaminating powder, e.g., hands, arms, clothing, equipment, etc.**

**3. Touching your lips or inside your mouth with anything that has been in contact with the decontaminating powder, e.g., hands, arms, clothing, equipment, etc.**

**CAUTION**

**Cover exposed cuts or wounds with ap, propriate first aid wrap or bandage prior to handung the packets.**

**1. Inspect the IEDK.**

**a. Check for loose black (decontaminating) powder.**

**(1) If no powder is detected, the kit is ready.**

**(2) If powder is detected, inspect each packet for leaks.**



(3) Discard all leaking packets.

b. Verify that there are at least four decontaminating packets in the kit.

**NOTE**

**If there are fewer than four decontaminating packets in the kit, request an additional kit.**

2. Use the IEDK.

a. Prepare the IEDK

(1) Remove one decontaminating packet from the kit.

(2) Tear the packet at a notched edge.

(3) Remove the pad applicator mitt.

(4) Discard the foil packet, using litter discipline.

(5) Open the pad applicator mitt.

(a) Unfold the pad applicator mitt.

(b) Grasp the outside of the pad applicator mitt.

- b. Decontaminate the glove for the hand you write with.
- c. Put on the decontaminated glove.
- d. Insert the decontaminated gloved hand inside the pad applicator mitt, placing the resin pad in the palm side of the hand.
- e. Decontaminate your individual equipment by rubbing with the resin pad side of the pad applicator mitt, making sure you cover all areas thoroughly, especially areas which are hard to get into (e.g., cracks, crevices, and other absorbent material). Decontaminate the following:

- (1) Your other protective glove.
- (2) Exposed areas of the mask and hood.
- (3) Your weapon.

**CAUTION**

**Never attempt to decontaminate a loaded weapon. Always unload, clear, and place weapons on safe before starting decontaminating procedures.**

- (4) Your helmet by patting the pad applicator mitt on the surface.

f. Discard the pad applicator mitt, employing litter discipline.

g. Get another packet.

h. Decontaminate the remainder of your individual equipment with the new packet.

- (1) LCE and accessories (e.g., canteen, ammo pouch, first aid pouch, etc.).

- (2) Mask carrying case.

- (3) Protective boots.

i. Repeat decontamination of the protective gloves.

j. Discard the pad applicator mitt, employing litter discipline.

k. Use another pad applicator mitt to decontaminate any

areas where liquid agent is still suspected or detected.

1. Repeat decontamination of the protective gloves.
- m. Discard the pad applicator mitt, employing litter discipline.

**CAUTION**

Only the liquid hazard has been removed. Items may still present a vapor hazard. Do not unmask until items have undergone complete decontamination or have been determined by appropriate detector (e.g., chemical agent monitor [cam]) to present no vapor hazard.

E-12. Protect Yourself from NBC Injury/Contamination With  
Mission-Oriented Protective Posture (MOPP) Gear,  
031-503-1015

1. Put on MOPP gear for MOPP 1 (figure E-83).



Figure E-83. MOPP levels zero, 1, and 2.

- a. Don the trousers.
  - (1) Put on the overgarment trousers over your normal duty uniform or over your undergarments in hot weather.
  - (2) Secure the trousers by snapping and zipping the trousers and adjusting the waistband for a snug fit.
  - (3) Do not fasten the bottom of the trousers at this time.
- b. Don the jacket.
  - (1) Put on the overgarment jacket.
  - (2) Zip it up.
  - (3) Fasten the snaps.

c. Secure the jacket to the trousers by snapping the three snaps across the back of the jacket to the trousers.

2. Put on additional MOPP gear (protective overboots) to reach MOPP 2 (figure E-83).

a. Put the older model chemical protective overboots on over the leather combat boots, lacing them according to the instructions provided in the package.

**NOTE**

The older model (figure E-84) has a single eyelet at the rear.

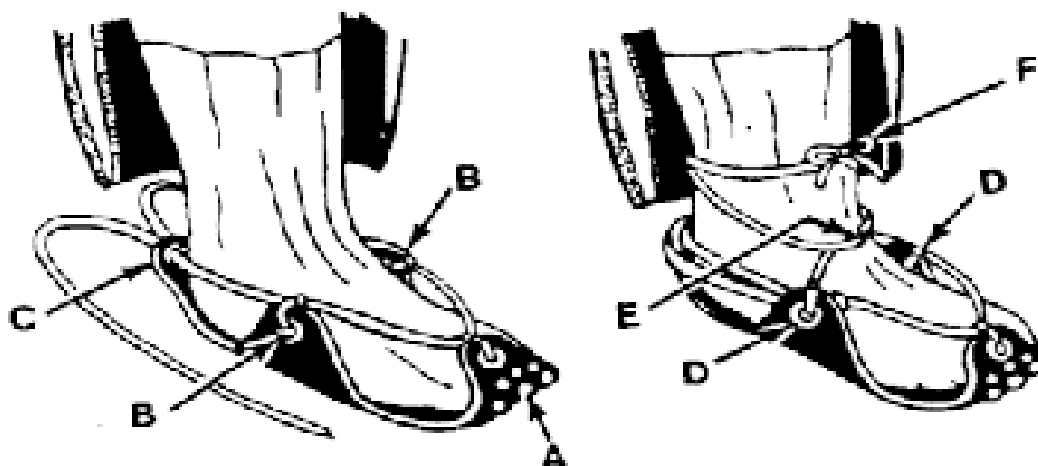


Figure E-84. Lacing old model overboots.

(1) Don the cover on either foot by centering your foot on the sole.

(2) Smooth the excess material as flat as possible.

(3) Lace:

(a) Thread the lace through the front eyelet so that the ends are the same length.

(b) Tie a single hitch by passing one lace end through each eyelet from the inside to the outside, drawing each lace end tight.

(c) Pass both ends through the rear eyelet from the inside to the outside.

(d) Bring the ends back through the side eyelets.

(e) Tighten by working the slack out of the lace between the side and back eyelets.

**NOTE**

**The lace should hold the rear eyelet firmly against the boot.**

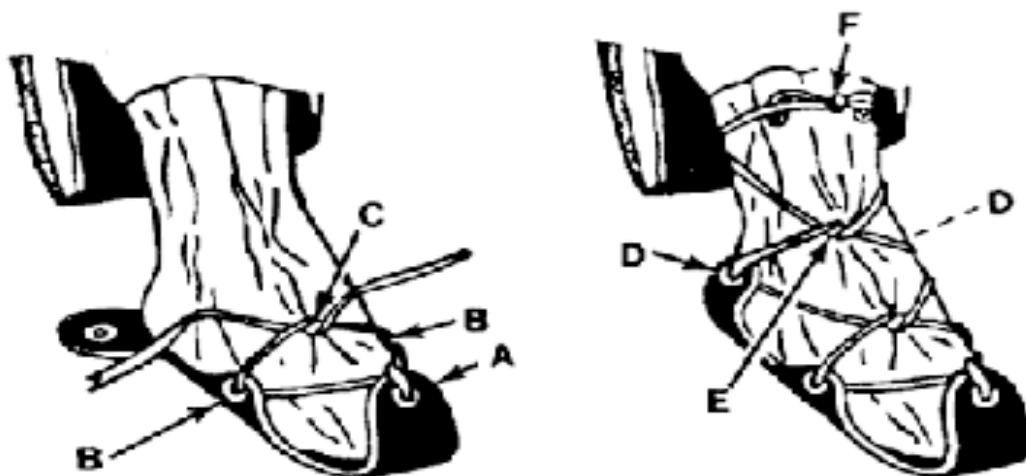
(4) Tie the lace tightly across the instep with a single hitch.

(5) Wrap the excess lace around your leg, tying the ends with a reef or bow knot.

b. Put the newer model chemical protective overboots on over the leather combat boots lacing them according to the instructions provided in the package.

**NOTE**

**The newer model (figure E-85) has two rear eyelets.**



**Figure E-85. Lacing new model overboots.**

(1) Don the cover on either foot by centering your Foot on the sole.

(2) Tuck the excess front material under the front of your foot.

(3) Lace:

(a) Thread the lace through the front eyelet so that both ends are the same length.

(b) Pass each lace end through a side eyelet from inside to the outside.

(c) Draw up tightly, fastening the lace with a single knot.

(d) Pass the ends through the rear eyelets from the inside to the outside.

(e) Pull up firmly, positioning the fishtails neatly at the sides of your ankle.

(f) Tie the lace firmly with a single knot in front.

(4) Wrap the loose lace ends around your leg, tying firmly in front with a bow knot and tucking in the loose ends.

**NOTE**

**The newer model method is being taught at the U.S. Army Chemical School. Units that still have the older model should continue to use the older model donning instructions.**

c. Put the green vinyl overboots on over the leather combat boots, securing by pulling the rubber bands around the metal buttons.

d. Blouse the overgarment trouser legs over the chemical protective overboots.

e. Secure the velcro closures of the overgarment trouser legs by zipping and tying the drawstrings firmly.

3. Put on your protective mask with hood to reach MOPP 3 (figure E-86).



Figure E-86. MOPP levels 3 and 4.

- a. Don the protective mask.
- b. Don the hood.
- c. Zip up the hood (M17-series protective mask only).
- d. Adjust the neck cord.
- e. Attach the underarm straps.

**NOTE**

**The time standards for masking do not apply to this task.**

4. Put on additional MOPP gear to reach MOPP 4 (figure E-86).
  - a. Secure your MOPP gear by zipping all zippers and closing all closures.
  - b. Put on the chemical protective gloves (rubber gloves and liners).



c. Pull the elastic cuffs of the overgarment jacket sleeves over the cuffs of the chemical protective gloves.

5. Additional MOPP posture is "mask only" (mask worn). This posture is not appropriate when a blister agent is present.

**E-13. Protect Yourself from NBC Injury/Contamination when Changing Mission-Oriented Protective Posture (MOPP) Gear,**  
031-503-1023

**NOTE**

**Both soldiers will perform steps 1 and 2 at the same time.**

1. Decontaminate your individual gear for chemical and biological contamination without assistance.

**NOTE**

**If at any time during the technique you suspect you have spread contamination onto your skin or undergarments, decontaminate immediately with the personal decontamination kit available. Then proceed with the MOPP gear exchange.**

a. Remove the chemical protective helmet cover, discarding it.

b. Cover your gear with STB dry mix.

c. Brush (or rub) STB mix into the material.

d. Shake off the excess.

e. Set your gear aside on an uncontaminated surface (plastic, poncho, or similar material).

2. Decontaminate your individual gear for radiological contamination without assistance.

a. Brush (wipe or shake) off the dust or radiological contamination from your individual gear.

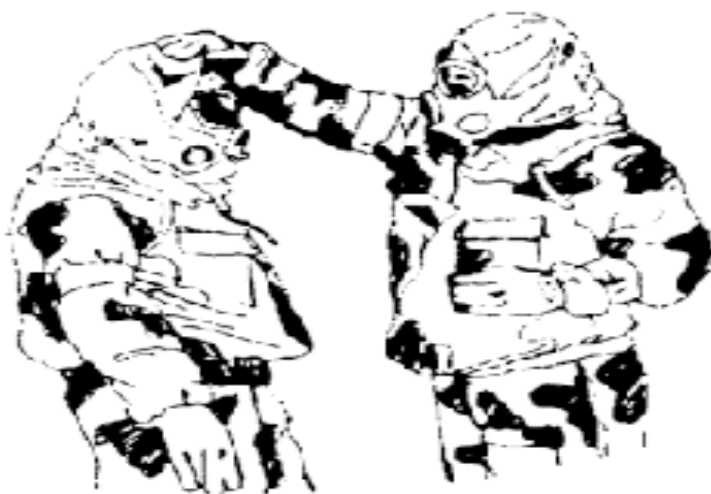
b. Wash the equipment with warm, soapy water, if available.

c. Set the equipment aside to dry on an uncontaminated surface (plastic, poncho, or similar material).

**NOTE**

**Do not reverse roles until steps 3 - 8 are completed.**

3. Decontaminate the hood and mask for chemical and biological contamination (figure E-87).



**Figure E-87. Decontaminating the hood.**

a. Have your buddy loosen your hood as follows:

- (1) Loosen the draw cord.
- (2) Remove the underarm straps from under your arms.
- (3) Move the straps over your shoulders.

(4) Reattach the straps to the velcro patches on the bottom of the hood.

b. Have your buddy decontaminate the hood and exposed parts of your mask using the decontaminating 2 wipe (including the canister and hose on M24, M25-series, or M40series protective masks).

**NOTE**

**Using the decontaminating 2 wipe first, then the decontaminating 1 wipe (reverse of the usual order), prevents residue from the**

decontaminating 2 wipe being left on the lenses. This will not affect the efficiency of the decontamination, but will keep the eyelens outserts from clouding.

(1) Wipe the mask eyelens outserts first.

(2) Wipe the entire mask from the top of the hood down.

c. Have your buddy repeat the preceding substeps using the decontaminating 1 wipe.

d. Have your buddy decontaminate his or her own gloves with the personal decontamination kit after your mask is decontaminated.

4. Decontaminate the hood and mask for radiological contamination.

a. Have your buddy dip the sponge in hot, soapy water.

b. Have your buddy wipe your mask and hood (and the canister and hose of the M24, M25-series, or M40-series protective masks).

c. Have your buddy rinse the hood and mask with a sponge dipped in clean water.

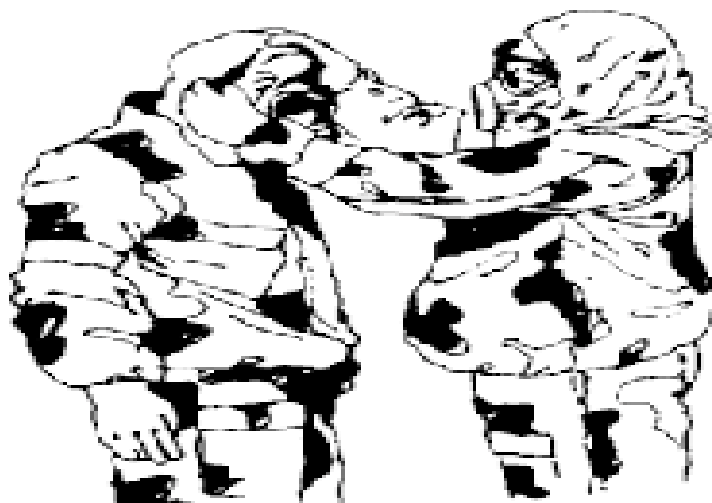
d. Have your buddy dry the hood and mask with paper towels or a rag.

e. Have your buddy wipe down his or her own gloves.

#### **NOTE**

Cool, soapy water is not as effective for removing contamination, but can be used if you scrub longer. If no water is available, the personal decontamination kit may be used (for chemical or biological decontamination).

5. Roll your hood (figure E-88).



**Figure E-88. Rolling the hood.**

- a. Leave the zipper closed.
- b. Have your buddy lift the hood straight up off your shoulders by grasping the straps.
- c. Have your buddy pull the hood over your head until most of the back of the head is exposed but the hood should not be completely over your face.
- d. Place your hand over the voicemitter to prevent the mask seal from being broken, if necessary.
- e. Have your buddy roll the hood tightly, starting at the chin and working around the mask without pulling it completely off the back of your head.

**NOTE**

**Do not reverse roles: Go on to the next step. Only one soldier will have the hood decontaminated and rolled at this time.**

6. Remove your jacket.

- a. Have your buddy:
  - (1) Untie the cord.
  - (2) Unfasten the snaps on the front of the jacket.
  - (3) Unzip the jacket.

(4) Unsnap the snaps in the back of the jacket from The overgarment trousers.

b. Make a fist as each sleeve is pulled off to prevent the gloves from coming off.

c. Have your buddy pull the jacket off, one arm at a time, turning the jacket inside out (figure E-89).

d. Have your buddy place the jacket on the ground nearby with the black side up (figure E-90).

**NOTE**

**You will use the jacket later as an uncontaminated surface to stand on while redressing.**

7. Remove your trousers.

a. Have your buddy open the trouser cuffs, then the waist snap, zipper, and, if necessary, the waist tabs.

b. Have your buddy grasp trousers leg by the cuff.



Figure E-89. Removing the jacket.



Figure E-90. Placing the jacket on the ground.

Pull that leg from the trousers (figure E-91).

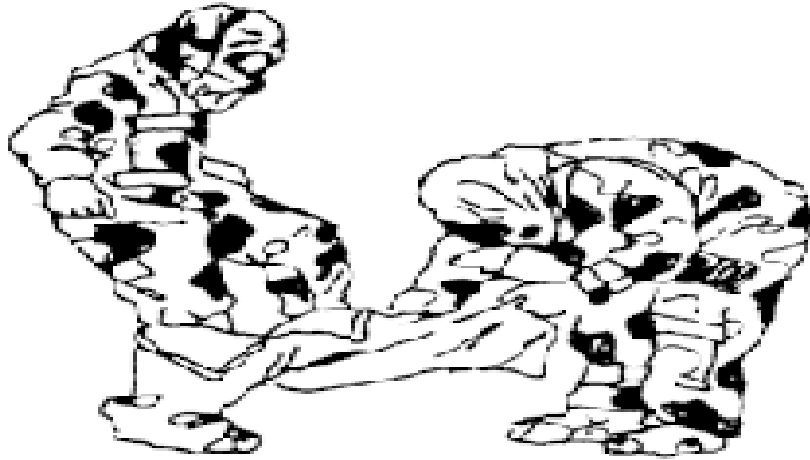
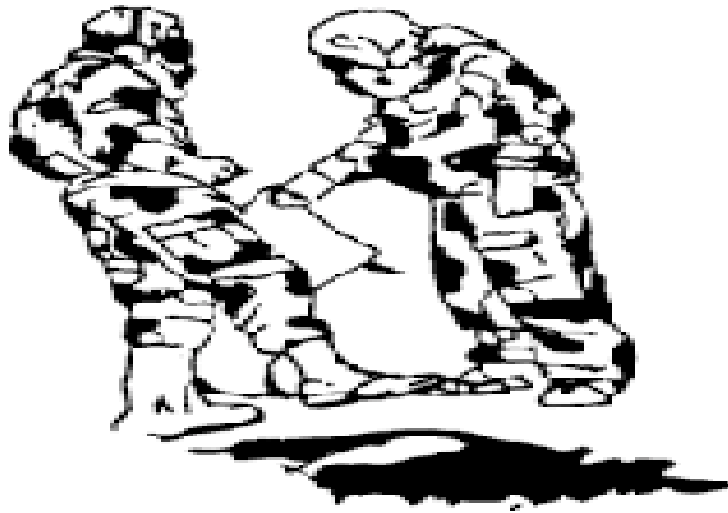


Figure E-91. Removing trousers.

- d. Repeat b and c for the other leg.
- e. Have your buddy place the trousers out of the way.
- 8. Remove your overboots.
  - a. Stand next to your jacket.
  - b. Have your buddy untie (or cut) the strings of your overboots.
  - c. Have your buddy pull them off, one overboot at a time.

- d. Step onto your jacket as the overboots are removed (figure E-92).



**Figure E-92. Removing the overboots.**

9. Remove the green vinyl overboots (GVO).
- a. Stand next to your jacket.
  - b. Have your buddy unfasten (or cut) the elastic closures of both of your GVOS.
  - c. Step on the heel of the opposite foot working that foot free while directing your buddy to pull the GVO off that foot.
  - d. Step onto your jacket as the GVO comes off.
  - e. Repeat steps b and c on the other GVO.

**NOTE**

If the GVO is extremely tight on the foot, use your hands to assist in the removal. Take care not to puncture the gloves. Decontaminate the gloves immediately afterwards.

10. Remove your rubber gloves, having your buddy assist you so you do not touch the outside of the rubber gloves with your bare hands (figure E-93).

11. Put on an uncontaminated overgarment.

a. Have your buddy open a package containing a new overgarment without touching the garment itself.

b. Pull out the overgarment one piece at a time without touching the outside of the package (figure E-94).



Figure E-93. Removing the rubber gloves.



Figure E-94. Unpacking the overgarment.

(1) Put on the new trousers, leaving the cuffs open (figure E-95).

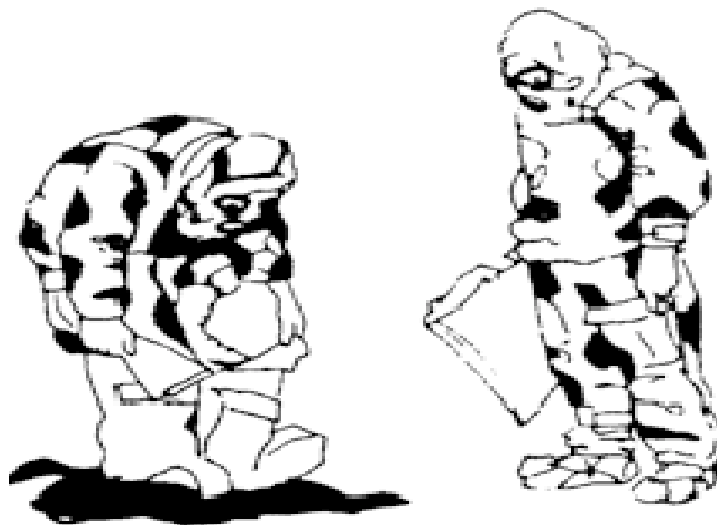


Figure E-95. Replacing the trousers.



(2) Put on the jacket (figures E-96 and E-97).



Figure E-96. Replacing the jacket.



Figure E-97. Securing the snaps and draw cord.

12. Put on the overboots.

- a. Have your buddy pick up a new package of overboots.
- b. Have your buddy open it without touching the overboots inside.

- c. Reach into the package (figure E-98).
- d. Remove the overboots.
- e. Put the overboots on (figure E-99).



Figure E-98. Unpacking the overboot.



Figure E-99. Replacing the overboot.

- 13. Put on the GVOS.
  - a. Have your buddy pick up a new package of GVOS, opening it without touching the GVOs inside.
  - b. Reach into the package, removing the GVOS.
  - c. Put on the GVOS.

**NOTE**

**GVO donning procedures are very basic; donning is done just like a regular wet weather boot.**

14. Put on the gloves.

- a. Have your buddy pick up a package of new chemical protective gloves, opening it without touching the gloves inside.
- b. Remove the gloves from the package (figure E-100).
- b. Put the gloves on (figure E-101).



Figure E-100. Unpacking the gloves.



Figure E-101. Replacing the gloves.

15. Secure the hood.

- a. Have your buddy decontaminate his or her chemical protective gloves (figure E-102) with the personal decontamination kit.

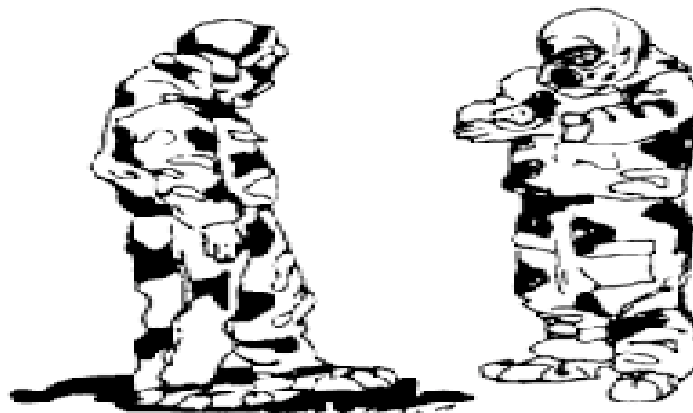


Figure E-102. Decontaminating the gloves.

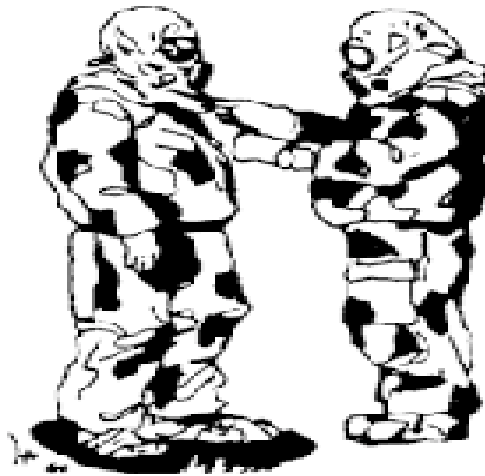
- b. Have your buddy reposition the hood as follows:

**NOTE**

**The buddy's gloves must be decontaminated before proceeding with this step.**

- (1) Unroll your hood.
- (2) Reattach the straps.

- c. Check all the zippers and ties on your hood and Overgarment to ensure they are closed (figure E-103).



**Figure E-103. Securing the hood.**

16. Repeat steps 3 through 15, taking the role of the buddy.
17. Secure your gear.
  - a. Place the new chemical protective cover on your helmet.
  - b. Put your individual gear back on.
  - c. Check the fit of the secured gear of your buddy.
  - d. Have him or her check your gear.
18. Move to the assembly area.

**E-14. Perform Individual Camouflage, 051-191-1501.**

1. Identify critical camouflage considerations, incorporating an analysis of the following considerations:

a. Movement.

**NOTE**

**Movement draws attention. The naked eye and infrared/radar sensors can detect movement.**

(1) Minimize movement, remembering that darkness does not prevent observation.

(2) Move slow and smoothly when movement is necessary.

b. Shape.

(1) Use artificial materials to break up shapes, outlines and equipment.

(2) Move, staying in shadows.

(3) Disguise or distort the shape of your helmet and body with artificial materials when conducting operations close to the enemy.

**NOTE**

**Gloss or shine caused by light reflecting from smooth or polished surfaces will attract attention. Remember moonlight and starlight can be reflected as easily as sunlight.**

c. Cover or remove the following items eliminating light reflection.

(1) Mess kits.

(2) Mirrors.

(3) Eye glasses.

(4) Watch crystals.

(5) Plastic map cases.

(6) Starched uniforms.

(7) Clear plastic garbage bags.

- (8) Dust goggles worn on the top of helmets.
- (9) Cigarettes and pipes.
- (10) Red filtered flashlights.

**NOTE**

**Flashlights - replace all red filters with blue-green filters.**

d. Color. Blend individual camouflage with the surroundings; or at a minimum, objects must not contrast with the background.

**NOTE**

**When moving from one area to another, change camouflage as required. What works well in one location may draw fire in another.**

2. Camouflage your skin.

**NOTE**

**Exposed skin reflects light.**

a. Cover your skin oils, even if you have very dark skin, using paint sticks. Paint sticks cover these oils and provide blending with the background.

**NOTE**

**Do not use oils or insect repellant to soften paint sticks. This defeats the purpose of paint sticks by making the skin shiny. Soldiers applying paint should work in pairs because self-application may leave gaps, such as behind the ears.**

b. Use the following table when applying paint on the face:

CAMOUFLAGE MATERIAL	LIGHT OR DARK SKIN COLOR	SHINE AREAS	SHADOW AREAS
		Forehead, cheekbones, ears, nose, and chin	Around eyes, under nose, and under chin
Loam and light green stick	All troops use in areas with green vegetation	Use loam	Use light green
Sand and light green stick	All troops use in areas lacking green vegetation	Use light green	Use sand
Loam and white	All troops use only in snow covered terrain	Use loam	Use white

Table 15. Face camouflage chart.

c. Paint exposed skin on the back of the neck, arms, and hands with an irregular pattern.

#### **CAUTION**

**Mud contains bacteria, some of which is harmful and may cause disease or infection. Mud should be considered last as a field expedient paint.**

3. Camouflage your BDUs.

a. Roll your sleeves down and button all buttons.

b. Attach leaves, grass, small branches, or pieces of LCSS to your uniform and helmet. These items will distort shapes and blend colors with the natural background.

#### **NOTE**

**BDUs provide visual and near infrared camouflage.**

c. DO NOT starch BDUs; this counters the infrared properties of the dyes.

d. Replace excessively faded and worn BDUs because camouflage effectiveness is lost.

4. Camouflage your personal equipment.

a. Cover or remove shiny items.

b. Secure items that rattle or make noise when moved or worn.

5. Camouflage your individual fighting position.

a. Place your position, considering camouflage as the most important factor.

b. Place your position out of the direct view of threat forces when possible. Example: Reverse slope defense.

c. Place your position at night or under other conditions of limited visibility.

d. Collect spoil in carrying devices for careful disposal.

**NOTE**

**Spoil may be used to fill sandbags and as a parapet for protection.**

e. Avoid disturbing the natural look of the surroundings.

f. Use LCSS and natural vegetation to distort the outline of the position.

**NOTE**

**Use decoy positions to draw enemy attention away from actual fighting positions.**

g. Conduct the camouflage process.

(1) Camouflage your position as it is built.

(2) DO NOT leave shiny or light-colored objects exposed.

(3) DO NOT remove shirts while in the open.

(4) DO NOT use fires.

(5) DO NOT leave tracks or other signs of movement.

(6) DO NOT look up when aircraft fly overhead. The most obvious features on aerial photographs is the upturned faces of soldiers.

h. Inspect the following.



- (1) Inspect your position from the enemy viewpoint.
- (2) Inspect the camouflage continuously to see that it stays natural looking and conceals the position.
- (3) Change or improve materials when they become ineffective.

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